APRIL 6, 1953

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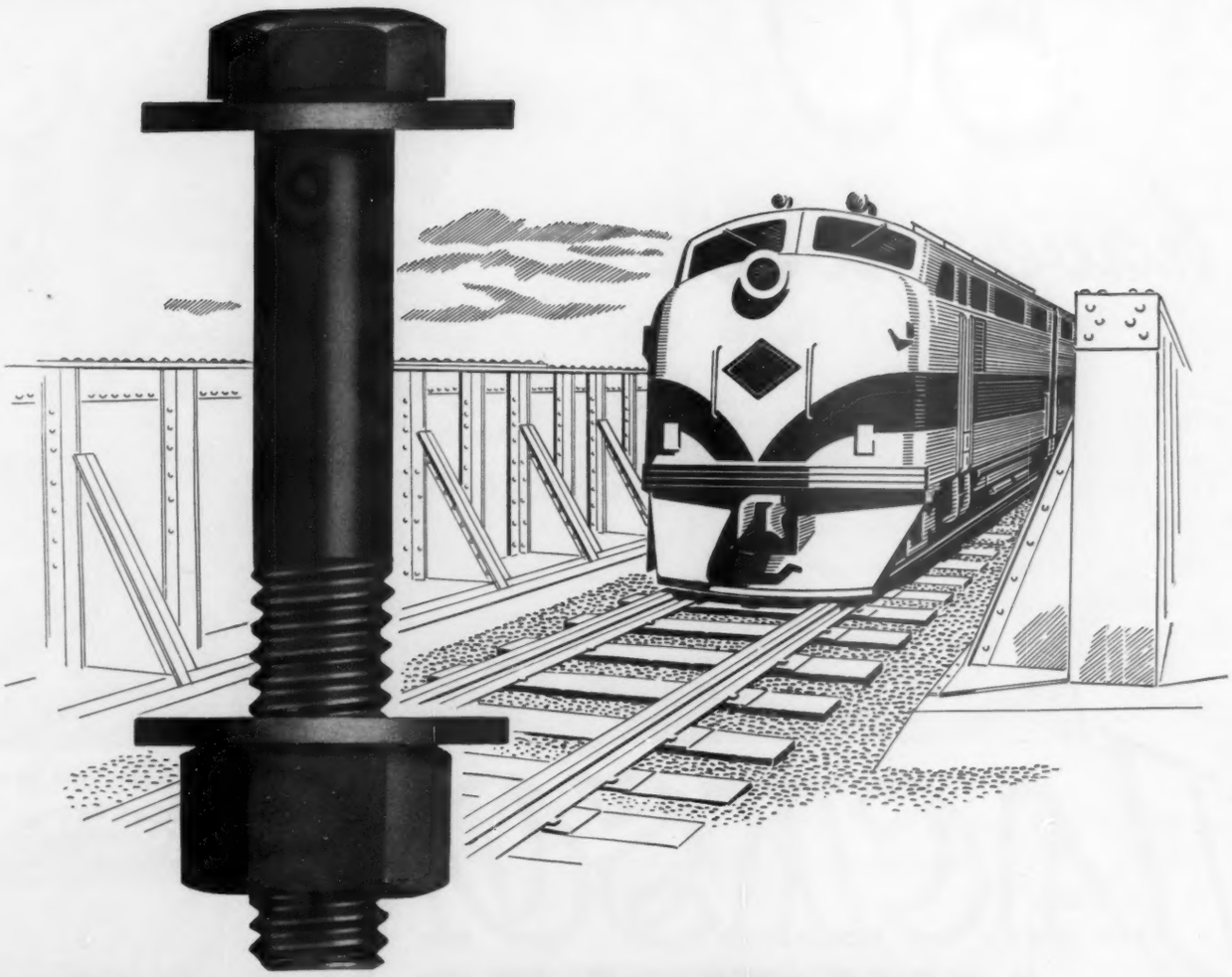

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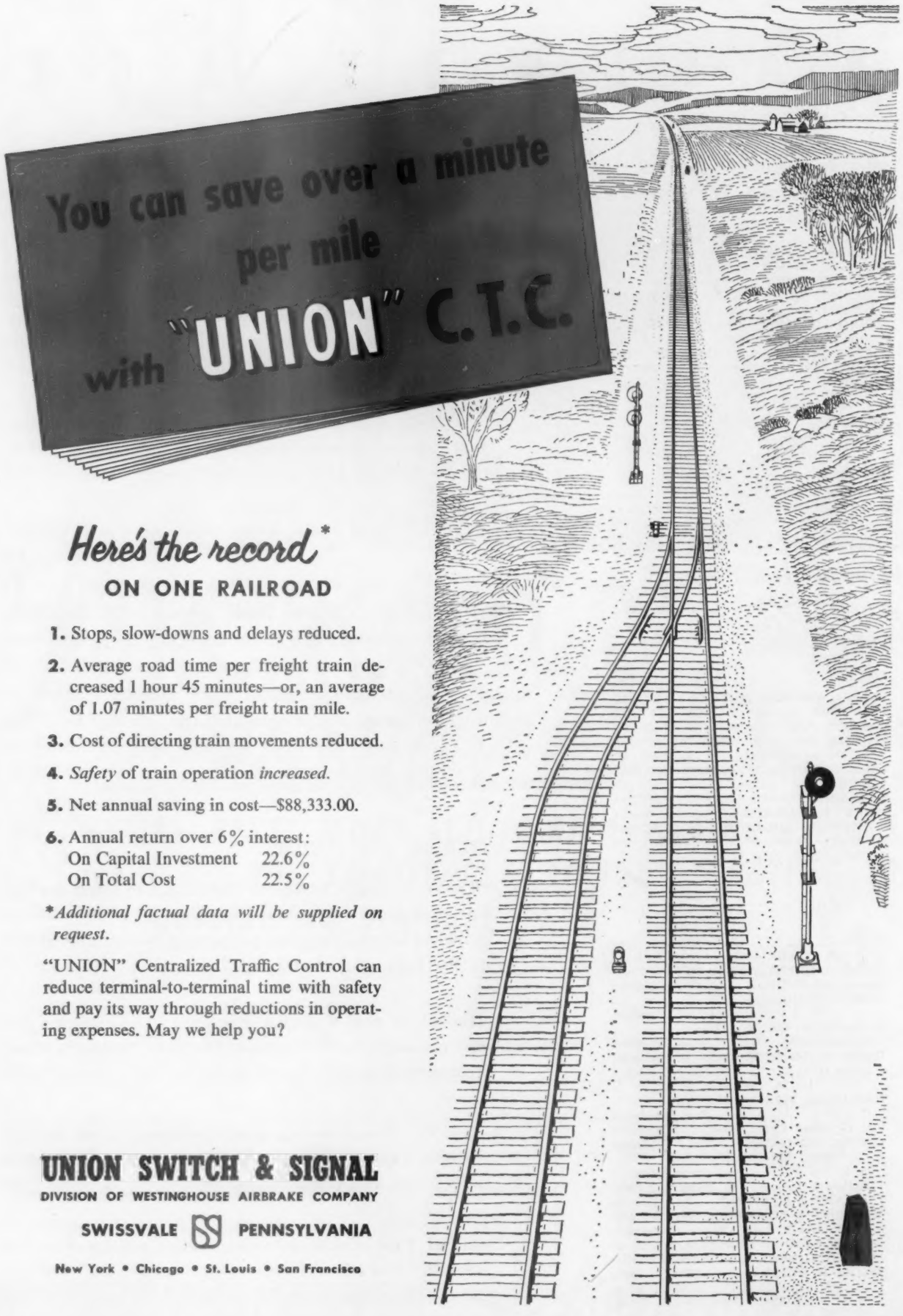

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Operating revenues, one month		
1953	$	863,001,072
1952		867,168,709
Operating expenses, one month		
1953	$	661,684,045
1952		685,457,775
Taxes, one month		
1953	$	102,918,275
1952		100,752,067
Net railway operating income, one month		
1953	$	80,074,947
1952		66,178,797
Net income, estimated, one month		
1953	$	58,000,000
1952		42,000,000
Average price railroad stocks		
March 31, 1953		66.61
April 1, 1952		60.40
Car loadings, revenue freight		
Twelve weeks, 1953		8,169,171
Twelve weeks, 1952		8,614,905
Average daily freight car surplus		
March 28, 1953		70,979
March 29, 1952		11,839
Average daily freight car shortage		
March 28, 1953		2,002
March 29, 1952		2,507
Freight cars delivered		
February 1953		7,780
February 1952		7,358
Freight cars on order		
March 1, 1953		71,883
March 1, 1952		118,900
Freight cars held for repairs		
March 1, 1953		94,165
March 1, 1952		91,906
Average number of railroad employees		
Mid-February 1953		1,184,197
Mid-February 1952		1,218,016

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"Ask for a Square Deal," Senate Interstate Commerce Committee Chairman Tobey told guests at the F.R.P.'s sixth anniversary dinner in Cleveland. Federation Chairman Robert R. Young had some interesting things to say, too, at the dinner and at a press conference on the following day. 88

The Most Deadening Factor of all the inequities imposed on railroads by the government is the federal

Week at a Glance CONTINUED

income tax. E. L. Tennyson suggests a 5 per cent tax on gross revenue instead. 90

BRIEFS

The "All-Diesel Club" has at least four new members—the Kansas City Southern and its wholly-owned affiliate, the Louisiana & Arkansas; the Midland Valley, and the Texas & Pacific.

A Mahaffie Act Recapitalization Plan for the Western Maryland, designed to eliminate dividend arrearages of $126 per share on the 7 per cent cumulative first preferred stock, has been submitted to the I.C.C. The probability of early submission of some such plan was suggested in these columns in the January 19 issue.

Secretary of Commerce Weeks' Disposition to get the government out of the transportation business is not yet strong enough to make him advocate liquidation of the Federal Barge Lines if the current offer to sell them attracts no private buyer willing and able to meet the law's tough requirements as to continuance of operations. The secretary, as he put it recently, was "not prepared to say" how he felt about the liquidation idea.

Problems in Electrical Insulation and wrapping may readily yield to a new plastic film being developed by DuPont. Known as Mylar, the product has a tensile strength of 25,000 lb. per sq. in. and can be produced in sheets as thin as one-quarter of one-thousandth of an inch. It is available in sheet or tape form, transparent or translucent. It can be used also as recording tape or, when coated with aluminum, as a metal foil. While it is still in experimental production, DuPont feels that by the time commercial production is feasible (early in 1955), a great many more uses will have been discovered for it.

A Perfumed Letter—in a suspiciously feminine envelope and in an unknown woman's hand—played a least a small part in one trucking firm's efforts to combat freight loss and damage. A spokesman for the American Trucking Associations revealed to the National Safe Transit Conference that the letter—carefully prepared for each driver and freight handler in the trucker's employ—actually contained a reproduction of a safe transit poster. A short letter, urging greater care in freight handling, was mimeographed on the back of the poster.

Oil in Northern Pacific Territory is only one of the many important developments affecting that road's future, its president, Robert S. Macfarlane, told a winter luncheon meeting of the New York Society of Security Analysts. Pointing out that the NP has mineral reservations on more than 3,000,000 acres in the Williston Basin, Mr. Macfarlane said there are now 13 producing wells, with six more being drilled, on NP-served lands in eastern Montana. The road has lands in eight of the 10 new fields in the Montana section of the Williston Basin, he added.

Air Freight Carriers are going to have their own trade association, according to "Aviation Week." The founding companies are the two largest certificated all-freight carriers — Flying Tiger Line and Slick Airways — plus four of the biggest non-scheduled air freight operators. The new "Transport Air Group" is expected to do for its members what the Air Transport Association now does for their combination passenger-cargo rivals. One of its aims will be to try to get money from Congress to develop prototype aircraft giving more payload for less power.

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Why Don't People Ride Trains?

I.C. Commissioner Arpaia says passenger service must be made more accessible and more attractive if railroads would reach travelers now using private automobiles

Interstate Commerce Commissioner Anthony F. Arpaia thinks the railroads might build their passenger business into a profitable operation if they made the service more accessible and eliminated characteristics which travelers find "objectionable, inconvenient and irritating."

Commissioner Arpaia expressed this view in a March 27 address at Washington, D. C., before the class of the Seventh Rail Transportation Institute of the American University. Travelers he thinks the railroads should court are those now using private automobiles — because these comprise the "greatest source of potential passenger traffic."

As to accessibility, Mr. Arpaia suggested development of suburban stations, with ample parking space, to and from which travelers could drive, with convenience and comfort. "Railroads," he said, "seem to have disregarded the fact that passengers have moved away from the heart of the city. . . . They have ignored the fact that the private automobile affords door-to-door service. How much and what has been done to meet the changed conditions by bringing the station to the source of supply?"

As an example of what he had in mind, Mr. Arpaia mentioned plans of the New York, New Haven & Hartford to develop a new station and parking lot at Canton, Mass., 15 miles out of Boston (*Railway Age*, March 9, page 18). Many such suburban stations could be developed into main-line stops, the commissioner said; and he thinks railroad opportunities in that respect are superior to those of the air lines.

"Trying Experiences"

As to making service more attractive, Commissioner Arpaia would have the railroads do something to relieve passengers of the "most trying experiences of train travel." He listed some of those experiences as follows:

1. Inadequacy of porter service.
2. The "milling about and searching for a seat in coach travel."
3. The "general indifference and lack of solicitude for the passenger after he has boarded the train."
4. The "inconvenience of obtaining meals and the extra expense attached to train travel."
5. "Drab, dark and gloomy" stations which are "as inviting as a mausoleum," being "drafty, poorly arranged and badly lighted."
6. The "irritating matter of ticket buying."

With these and other like situations cured, Mr. Arpaia thinks train travel "should be the most dependable, com-

REPEAL OF FARE TAX ADVOCATED BY ARPAIA

Repeal of the 15 per cent tax on amounts paid for passenger transportation is favored by Interstate Commerce Commissioner Anthony F. Arpaia.

In his March 27 address at the American University, Mr. Arpaia said the levy was one of the factors contributing to the differential between railroad fares and the cost of travel by private automobile. The commissioner proceeded to develop his repeal argument as follows:

"The nation needs rail passenger equipment and service. . . . It is a small cost for the government to yield up the revenue which the tax on passenger fares produces to keep these facilities strong and efficient. The tax was enacted during the war primarily to discourage travel. It now should be repealed to do the reverse, to foster the use of public transportation."

THE CLASS of the Seventh Rail Transportation Institute conducted last month at the American University, Washington, D.C., with the institute's director—Dr. L. M. Homberger (front row, sixth from left). The institute's closing session was a March 27 luncheon at which students received certificates presented by Dr. Ernst Posner, director of A.U.'s School of Social Sciences and Public Affairs.

fortable, and logical means of transportation." His suggested cures included proposals that there be installed conveyor systems for the handling of baggage from station entrance to train-side; that passengers be directed to places on the station platform where they could board coaches in which seats would be available; and that coach-train crews include stewardesses.

Also, that trains generally be equipped with food and drink dispensers and "inexpensive counter-type diners"; that stations be modernized and redecorated in "bright" colors, their waiting rooms equipped with news tickers, radios and "perhaps" television; that ticket-vending machines and "telephone-booth" ticket services be more widely adopted.

Commissioner Arpaia emphasized that he did not intend to imply that the passenger-service problem can be simplified. "It is," he said, "one of the most complex and perplexing issues facing the country today." The solution, he advised, calls for an overall program, with all passenger-carrying roads participating.

"Obviously," the commissioner also said, "there must be reasons why not enough people use trains. Travel by auto on long trips should be unattractive and undesirable."

Traffic

Forecast Sees Loadings Up 8 Per Cent

Shipper boards predict that second quarter's business will be that much above last year

Freight carloadings in the second quarter of 1953 are expected to be eight per cent above those in the same period of 1952, according to estimates of the 13 regional Shippers Advisory Boards.

On the basis of those estimates, loadings of the 32 principal commodity groups will be 7,634,850 cars in the second quarter of 1953, compared with 7,068,587 actual loadings for the same commodities in the corresponding period in the preceding year.

Ten boards estimate an increase and three a decrease in loadings for 1953's second quarter compared with the like 1952 period.

The tabulation shows actual loadings for each district in the second quarter of 1952, estimated loadings for the second quarter of 1953, and percentage of changes.

Shippers Advisory Boards	Actual Loadings, Second Quarter, 1952	Estimated Loadings, Second Quarter, 1953	Per Cent Increase
New England	106,638	104,331	2.2 dec.
Atlantic States	742,212	796,775	7.4
Allegheny	787,771	877,890	11.4
Ohio Valley	894,325	915,273	2.3
Southeast	1,018,135	1,052,203	3.3
Great Lakes	540,105	686,938	27.2
Central Western	204,852	214,139	4.5
Midwest	758,526	796,841	5.1
Northwest	540,105	689,270	27.6
Trans-Missouri-Kansas	362,060	352,866	2.5 dec.
Southwest	501,174	498,726	0.5 dec.
Pacific Coast	378,783	394,918	4.3
Pacific Northwest	233,901	254,680	8.9
TOTAL	7,068,587	7,634,850	8.0

The boards expect an increase in the loading of 22 and a decrease in 10 of the commodity groups listed. Among those showing increases are: Ore and concentrates, 42.1 per cent; iron and steel 34.8 per cent; motor vehicle parts, 28.7 per cent; automobiles and trucks, 20.7 per cent; potatoes, 17.9 per cent; frozen food, fruits and vegetables, 17.1 per cent; metals other than iron and steel, 10.5 per cent; brick and clay products, 7.3 per cent; cotton, 6.2 per cent; gravel, sand and stone, 5.6 per cent; fresh fruits other than citrus fruits, 5 per cent, and fertilizers of all kinds, 4.1 per cent.

Commodities for which decreases are estimated include: Hay, straw and alfalfa, 6.1 per cent; grain, 4.3 per cent; agricultural implements and vehicles other than automobiles, 3.9 per cent; citrus fruits, 3.4 per cent, and flour, meal and other mill products, 2.8 per cent.

"ROSALIE"—the first diesel-electric locomotive ever built with Caterpillar diesel engines—has retired from service on the Peoria & Pekin Union. Originally painted a vivid raspberry hue (hence her nickname) this unusual looking locomotive was built by the Davenport-Besler Corporation in 1937 using four Caterpillar D-17,000 engines of 180 hp. each. After service as a demonstrator on the Rock Island and later on the P&PU, she was bought by the latter road in May 1938. During her service with the P&PU, the 211,400-lb. switcher averaged 12 hours of service daily. Now she is in Newport, Ky., working in the yards of the Newport Steel Company—but with a less spectacular paint job and perhaps without her colorful P&PU nickname.

Rail Problem Financial —Not Physical: Hopkins

"There is no sign that this country will ever require less transportation than now. But there are plenty of signs that it will need—and use—more," Z. G. Hopkins, special representative of the Association of Western Railways, said in Santa Barbara, Cal., on March 20.

Pointing out that the increase in railroad freight traffic from 1940 to 1944 was greater than the growth during the first 85 years of railroad service—from 1830 to 1915, Mr. Hopkins said: "A corresponding increase in railroad capacity can be accomplished in the next two decades with less expenditure of capital, public or private, more readily, and with less inconvenience to the public and less congestion of avenues of traffic, than is now possible with respect to any of the other types of transport that now supplement railroad services.

"The railroads' problem with respect to continuing improvements and expansion of capacity is not physical. It is financial. There is no apparent physical limit to railroad ability to expand capacity—if funds are available. But the funds must be supplied by earnings, directly or indirectly."

"My Chief Gripe About RRs"

J. R. Staley suggests they should get out of l.c.l.; don't have enough competitive spirit; love paper work

"A fundamental trouble of the railroad l.c.l. business," J. R. Staley, traffic vice-president of the Quaker Oats Company, told students at the Northwestern University School of Commerce 16-week forum on railroad management in Chicago (*Railway Age*, February 9, page 17), "is the shipper's right to route his own freight. This right, which is so stubbornly retained by the shippers, is responsible for not less than 35 per cent of the railroads' total cost of moving less-than-carload traffic. The railroads should get out of the l.c.l. business, and devote their entire attention to developing and building carload traffic. Let others assemble and distribute small-lot shipments and give it to the railroads for movement in carload lots."

No Competitive Spirit

"My chief gripe about the railroads," Mr. Staley continued, "is that they consume too much of their energy competing with each other, batting around the total volume of freight now moving by rail, when the attention and abilities of their management and salesmen should be directed to seeking freight not now moving on any railroad. The railroads are not really well now —and they never will get well—until they go out and dig up new business instead of being content to sit by dividing up existing rail traffic.

"There is no real digging, to see what is responsible for lost traffic—digging to find business not moving by rail and what can be done about it; not enough digging to open and develop new markets, thereby creating new rail traffic.

"There is a genuine opportunity for the railroads to go out and get back a lot of business. Rates will help, but at least half the time service is just as important. The railroads have a weapon in the box car. Freight rates are not made in a way designed to make capital of its inherent advantages. Railroads generally are too content to haul around a box car capable of holding 100,000 lbs. with a 30,000-lb. load. Loading cars heavier —as was so amply proven during World War II—enormously reduces the cost to the railroad of handling a given amount of business. By providing 'incentives' for shippers to load cars heavily, the railroads could offer rates truck operators could never touch. Give a shipper an incentive and he'll help the railroads make money, as the southeastern lines have found out through use of their heavy-loading incentive rates on whiskey and on paint and lacquer.

"We fellows who pay the bills occasionally get kind of provoked at the railroads because of the way they love to squander time and money on piles of useless paper work. How can a railroad justify all the clerical expense and effort of sending out a bill for a 23-cent under charge? Yet we at Quaker Oats receive hundreds of such small bills—and certainly not one of them produces sufficient revenue to offset the clerical cost of rendering the bill. There are other ways the railroads like to spend time and money on paper work—such as typing out a complete waybill and freight bill, itemizing every article in a large mixed shipment, when the shipper has supplied a complete, typed bill of lading. Wouldn't it be much quicker and easier simply to refer to the shipper's bill of lading? Not content to do it once, some roads even sit down and copy the bill of lading a second time for the benefit of the consignee—who has already received a copy of the bill of lading from the shipper. And some of them do this even on prepaid shipments.

"By streamlining their paper work, cutting out the useless garbage, the railroads could undoubtedly speed service and reduce costs—all to their benefit."

Would Broaden "Griffin Plan"

"Perfect Shipping" also keynotes Boston meeting of New England Shippers Board—Atkinson is principal speaker

"Perfect Shipping" was a keynote of the meeting of the New England Shippers Advisory Board held at Boston March 26, as R. D. Chase, traffic manager of the Boston Wool Trade Association and chairman of the board's Freight Loss and Damage Prevention Committee, announced a program of eight evening loss and damage meetings for April and early May, plus freight-house meetings at nine New England cities. Mr. Chase pledged the full support of New England shippers in the campaign to reduce the nation's loss and damage bill, which last year totaled approximately $107 million.

The board passed a resolution, presented by L.C.L. Committee Chairman E. H. Erlandson, requesting the National Association of Shippers Advisory Boards to recommend and urge the special committee appointed by the Association of American Railroads, in its exploration of the l.c.l. problem, "to give most careful thought and study to the matter of channelized routing and encouragement of the use thereof, by shippers, as a means of improving existing l.c.l. service." This, in effect, puts the New England board on record as favoring extension of the so-called "Griffin Plan" (see page 75).

Another resolution adopted was to the effect that "the N.A.S.A.B. be instructed to recommend and urge adoption of a resolution requesting the A.A.R. to establish as a national policy that, whenever requested by shippers, individual rail carriers shall immediately notify them by wire of cars held out in transit for repairs."

Other highlights of the meeting included addresses by Arthur K. Atkinson, president of the Wabash, and a national transportation situation report by J. J. Kelley, manager, Military Transportation Section, Car Service Division, A.A.R.

Time to "Pension" Laws

Mr. Atkinson detailed advances made by the railroad industry in recent years, and compared their performance during World War I and World War II. He cited federal and state regulations as major drawbacks to a healthy railroad transportation system, and stated that since the system of railroad regulation which began as far back as 1887 is now 65 years old, "it would appear high time that it be pensioned off and replaced by a more modern policy to require only the limited regulations required by the public interest."

Mr. Kelley covered the general car supply situation, pointing up the heavy demand for flat cars, which is expected to continue for some months, and the continued pressing requirements for better grade box cars. He also reviewed the military transportation requirements and the need to continue to build up our railroads "so the people of this country may look forward with some confidence toward that day, if it should ever come, when the armed forces of this nation may once again call upon the railroad industry to help them in the defense of our country."

All officers of the board were re-elected.

NYC Three-Train Wreck Kills 21

A freak three-train collision on the New York Central main line about three miles east of Conneaut, Ohio, early on March 27 caused the deaths

of 18 passengers, one Railway Express Agency employee and two train crew members. Railroad officers estimated that property damage alone will total about $500,000. All tracks have been restored to service.

Spokesman for the road said the wreck was caused by an 18-in. steel pipe, 35 ft. long, which had fallen from an eastbound freight train and bent a rail on the westbound tracks. A second freight, headed west, was derailed as it passed over the bent rail. Moments later, an 11-car passenger train, en route from Buffalo to Chicago, piled into the derailed freight cars. Ten of its cars left the tracks. Almost immediately thereafter, the "Southwestern Limited," on its way from St. Louis to New York, smashed into the wreckage. Nine of its 12 cars were derailed.

A relief train carrying Red Cross disaster personnel and medical supplies, including plasma, was rushed to the accident scene by the NYC. Some 400 passengers and crew members were involved in the series of crashes.

The Interstate Commerce Commission on March 27 issued an order making its investigation of the accident a formal proceeding, docketed as Ex Parte No. 186. Hearings before Commissioner Patterson and Examiner Hoy got under way April 1 at Erie, Pa.

"Suspend Service Order 865"

Allegheny Board asks I.C.C. for relief from penalty demurrage on gondolas "until conditions justify reinstatement"

At its March 25-26 meeting, he'd at Pittsburgh, the Allegheny Regional Advisory Board passed a resolution asking that, effective March 31, the Interstate Commerce Commission suspend its Service Order 865 insofar as the penalty demurrage on gondola cars is concerned, "until conditions justify reinstatement." The board noted that present surpluses of this type of equipment are about two per cent of railroad ownership, "a greater surplus percentagewise than on some types of cars which are exempt from Service Order 865 . . ." [Since the board met, the I.C.C. has extended the effective date of this order to June 30, as reported elsewhere on this page.—EDITOR]

C. R. Megee, vice-chairman, Car Service Division, Association of American Railroads, told the board that there was no cause for complacency about the car supply situation during the next few months, when the railroads will need "every flat car, box car, gondola and covered hopper to meet requirements." Mr. Megee emphasized the need for handling cars in accordance with principles of A.A.R. car service rules.

W. Arthur Grotz, president of the Western Maryland, was guest speaker before the board. Mr. Grotz addressed himself to the task of dispelling the "widespread fallacious notion" that railroads suffered from three ills: operational rigidity; complex financial structures; and ultra-conservative managements. Mr. Grotz cited dieselization, mechanization of maintenance of way work, yard improvements and the railroads' research programs, etc., as support for his contention that these notions were false. He said population, production and the standard of living in America would increase beyond the dreams of most people and that railroads and industry should start planning for increased transportation needs. Therefore, Mr. Grotz concluded, everything possible must be done to create an atmosphere favorable to capital investment and encouraging to the dynamic enterprise of transportation leaders.

P. W. Hartsock, assistant traffic manager, Warner Company, Bellefonte, Pa. was elected general chairman of the board. Other officers installed were: Vice-general chairman, J. F. Davis, traffic manager, Babcock & Wilcox Co., Beaver Falls, Pa.; general secretary, A. C. Roy, general traffic manager, Pennsylvania Glass Sand Corp., Pittsburgh; chairman, executive committee, W. F. Schulten, vice-president Pittsburgh Consolidation Coal Company, Pittsburgh; and vice-chairman, executive committee, F. W. Bennett, general traffic manager, Sharon Steel Company, Sharon, Pa.

THE NEW TWIN CAR FERRIES "Badger" and "Spartan"—billed as the "C&O's $10,000,000 Double Feature"—are now in regular service carrying freight cars, automobiles and passengers across Lake Michigan. They increase the C&O's lake ferry fleet to seven ships.

Car Service Orders

I.C.C. Service Order No. 865, which imposes super-demurrage charges up to $20 per day, has been modified by Amendments 32 and 33. No. 32 set back the order's expiration date from March 31 to June 30. No. 33 continued in effect (also until June 30) provisions which suspend the order's applicability to all cars except gondolas and flats.

I.C.C. Service Order No. 866, which prescribes operating regulations for movement of freight cars, has been modified by Amendment No. 5, which set back the expiration date from March 31 to June 30.

I.C.C. Service Order No. 869, which restricts use of refrigerator cars for commodities other than perishables, has been modified by Amendment No. 7, which set back the expiration date from March 31 to June 30.

I.C.C. Service Order No. 872, which maintains the permit system controlling movements of grain to Gulf of Mexico and Pacific Northwest ports, has been modified by Amendment No. 1, which set back the expiration date from March 31 to July 31.

I.C.C. Service Order No. 887 has been modified by Amendment No. 2, which set back the expiration date from March 31 to June 30. This order authorizes substitution of up to three SFRD, PFE, or WP refrigerator cars (not suitable for transporting perishables) in lieu of each box car ordered for shipments within the area

embraced by the states of Oregon, California, Arizona and Nevada.

I.C.C. Service Order No. 888 has been modified by Amendment No. 1, which set back the expiration date from April 1 to July 31. This order maintains minimum-loading requirements for carload transfer freight; and for cars stopped off to complete loading or originally placed (for "carrier convenience") at a stop-off point.

Munition Cars Explode, Town Heavily Damaged

The small Indiana mining community of Lewis (population, 600), was partially destroyed when three cars of military ammunition exploded after a 107-car Chicago, Milwaukee, St. Paul & Pacific freight train halted there late on March 28.

According to reports received at Milwaukee headquarters in Chicago, the train was enroute from Terre Haute to Bedford. The three cars of munitions had been picked up from connecting lines at Terre Haute and were coupled within the consist in accordance with Interstate Commerce Commission safety regulations. The train was passing through Lewis on a descending grade when, for causes not yet determined, the brakes went into emergency and the train halted.

A brakeman, when he went back to uncouple the first few cars to clear a highway crossing, noticed a small fire at a point about 40 cars from the locomotive. He had just uncoupled the head end of the train at this latter point when there was a small explosion in one of the cars. Another small explosion was followed by a major explosion, and for six hours thereafter the town was hit by intermittent explosions of rockets and artillery shells which ultimately destroyed the entire business district and damaged virtually all the 100 houses in the community. Because most of the population was attending a gathering some distance from the railroad, there were no fatalities and most of the injury cases reported were not serious.

A Milwaukee spokesman said between 22 and 24 freight cars were completely destroyed. Among them were several cars of coal and two of merchandise but most were empty gondolas. The crater left by the series of blasts was reported to be more than 50 ft. long and 20 ft. deep. Complete destruction of both cars and trackage will make it difficult to determine the cause of the accident, he said. Some reports indicated there were six cars of ammunition destined for the military storage depot at Crane, but the spokesman said waybills indicated the lading of three cars for Crane was inert.

Because the explosions threw into the community many shells that did not explode, the town had to be cleared of all inhabitants until it could be cleaned up by army demolition experts from nearby Camp Atterbury.

Rates & Fares

Tariffs Will Be Improved This Year

That "very considerable progress will be made" is prediction of C&NW's Small, new head of railroad committee that directs simplification program

High priority in 1953's tariff-simplification program will be given to performance of "a major operation on the rules in rate tariffs."

That's what Robert O. Small, vice-president—rates and divisions, Chicago & North Western, said in his first public statement as chairman of the Administrative Committee which supervises the Railroads' Tariff Research Group. The statement was a March 27 address which Mr. Small made at a luncheon sponsored by the Transportation Club of San Francisco to honor members of his committee and of the National Industrial Traffic League's Cooperating Committee for Tariff Simplification.

The luncheon was part of the program of a joint meeting which the committees held in San Francisco. Other speakers were Mr. Small's predecessor in the chairmanship of the railroad committee—Fred Carpi, traffic vice-president of the Pennsylvania; and the chairman of the N.I.T. League committee—John W. Peters, traffic manager of Delco-Remy Division, General Motors Corporation.

The rules phase of the simplification program "rates a high priority," Mr. Small said, because "much of the inefficiency charged to our tariff set-up stems from obscurity, ambiguity and general want of aptness in the statement of the rules, and other governing provisions of a narrative character in our rate tariffs."

The Objectives

The objectives here, as Mr. Small stated them, will be: (1) To make the rules easy to find by standardizing the location in all tariffs; (2) to make their substance instantly recognizable through uniform, apt and illuminating tariffs; and (3) to make them easy to read and understand by simplifying and adjusting the language and removing "grammatical abominations" in phrasing and punctuation.

Mr. Small went on to discuss prospects for simplification of routing instructions. In that connection he noted the "serious problem" which arises as a result of "traditional" requirements as to circuity limitations which the Interstate Commerce Commission imposes in fourth-section cases.

As reported in *Railway Age*, March 30, page 6, the railroads and N.I.T. League have joint plans to ask the commission to alter those requirements. Mr. Small referred to those plans and added: "The commission has been most helpful in advancing the cause of tariff simplification and we have every confidence it will sympathetically listen to our story."

Other parts of the simplification job, as listed by Mr. Small, will include undertakings to rid the tariffs of obsolete matter; to develop a proposed remedy for the "irritating problem of binding holes," and to find an answer to the "extremely serious matter of rate alternations."

Progress to Date

Mr. Carpi's address was a review of progress made since the simplification program was inaugurated 19 months ago. He dealt first with the matter of uniformity in make-up of tariffs, the progress there having included:

1. Standardization of title pages.
2. Promulgation of a single set of rules to govern construction of tables of contents.
3. Prescription of a standard design for the list of participating carriers.
4. Standardization of location of explanation of general reference marks in the back of tariffs, and development of means to reduce the "overly-generous" use of reference marks.
5. Prescription of a uniform system for numbering of pages to tariffs and the sequence of numbered sections.
6. Action to require that intrastate application of every tariff be "effectively removed from the area of doubt."
7. Finding a way to rid the active files of partially cancelled tariffs.

The March 27 meeting of the two committees considered 18 proposals for "further changes in the interest of more usable and more efficient tariffs," Mr. Carpi also said. Actions taken at the meeting will be made public when the related instructions are issued to tariff publishing agents and tariff using officers.

The PRR vice-president closed his address with tributes to the tariff-using public which has "responded most generously in making its views and criticisms known to us"; to the I.C.C. and its Bureau of Traffic for the "expert and inspiring assistance rendered"; to the state commissions and the National Association of Railroad and Utilities Commissioners for "splendid cooperation"; to the N.I.T. League committee for its "immense contribution"; and to the chairman of the research group, Charles S. Baxter, "that dy-

namic personality who has contributed so much to the cause."

Mr. Peters outlined procedures which have been followed in gathering information for the simplification work, and expressed his committee's appreciation to league members who have "contributed generously of both time and money."

"The league," Mr. Peters added, "is definitely committed to continue its full participation until the task is completed. Enthusiasm runs high among its members."

Roads Ask "Permanent" Rate Boost

I.C.C. gets request to extend Ex Parte No. 175 increases beyond February 1954, and end "surcharges"

The railroads have asked the Interstate Commerce Commission to make permanent the rate increases granted in Ex Parte No. 175. These increases, averaging about 13.8 per cent, are scheduled to expire February 28, 1954.

The carriers also asked the commission to remove the requirement that the "175" increases be applied as "surcharges." This would bring the rates into the basic rate structure, the same as increases authorized in previous general rate cases.

No additional rate increase will be sought at this time, despite higher costs incurred during the past 11 months, the railroad petition said. But this does not mean that such action "may not ultimately be required," the petition added.

Continuation of the program for improvement of railroad equipment and services depends upon revenues produced by the higher rates authorized last April, the railroads told the commission. Those increases produce approximately $1,000,000,000 in gross annual revenue.

"A reduction of 1953 operating revenues by that amount would leave the railroads with a return of less than 2 per cent on net investment and there is no reason to believe that in 1954, or thereafter, the return would be any better," the petition said.

Payroll Costs Higher

Since the I.C.C.'s decision of last April, annual payroll costs have increased more than $200,000,000, and while the cost of living index that will affect wages beginning April 1 is expected to decline, this will not reduce wages to the level prevailing when the rate decision was made, the railroads said.

Wages during the past 11 months have advanced seven cents an hour, including the recent "productivity" raise of four cents, the petition continued. Meanwhile, prices of materials and supplies remain at the same levels as those which prevailed at the time of the "175" decision.

The carriers asked the commission to remove the "cloud of uncertainty" created by the February 28, 1954, expiration date, and urged that the date be eliminated without a hearing. They said the record in Ex Parte 175 has been held open, and the commission has before it the principal facts as to the railroad financial situation and operating results.

"It is of obvious importance to the railroads, to commerce and to the national defense that the expiration date and the resulting uncertainty which now attaches to the rate increases be eliminated now instead of waiting until the date is hard upon us.

"The conditions which required the increase have no appearance of being temporary. There is no indication that they are likely to be at an end on February 28, 1954, or at any foreseeable date," the railroads said.

How Rate Changes Affect Revenue Shown by I.C.C.

Indexes to show how rate changes directly affect revenue have been developed by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. The bureau has issued Statement No. 535, the second in this index series.

Changes in revenue may result from causes other than changes in rates, the bureau pointed out. It cited, for example, changes in traffic volume, commodities moved and length of hauls. An attempt was made to filter out, or minimize, these factors in developing the indexes.

The first undertaking by the bureau to measure changes in revenue due solely to changes in rates was in 1951, when the bureau issued a statement covering the years 1947-1950. The present statement carries these figures through 1951.

An accompanying table, reproduced from the statement, shows indexes by commodity groups for each of the five years. Figures in the "approximate standard deviation" column indicate the "normal" margin of error to be expected because the bureau's one per cent sample of the waybill studies was used.

Commodity Prices Outran Freight Rates Through '50

Postwar increases in commodity prices continued through 1950 to outrun increases in railroad freight rates.

This was pointed up by a study made by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The study, Statement No. 532, was issued "as information," and was "not considered or adopted" by the commission.

It showed the relation between freight revenue of Class I roads and the destination wholesale value of commodities transported by them. The showing was by commodity groups and commodity classes.

Expanded Classification

It was based on the expanded classification containing 262 commodity classes, which became effective January 1, 1947. A similar previous study, issued in 1948, had 1946 figures on the basis of the old grouping of 157 commodity classes. Thus the 1950 figures, shown in the accompanying table, which was reproduced from the study, are not fully comparable with those for the previous years. This is especially true of Group VII, L.C.L.

For the year 1950, the total destination value of freight transported was estimated at $147,920,522,000. The freight revenue amounted to $8,143,383,000, or 5.51 per cent of the value of the commodities. While that was a shade above the not-fully-comparable 1946 figure, it was well below figures shown for pre-war years, which were also on the 1946 pattern. The latest general freight rate increases (the Ex Parte 175 raises) came in 1951 and 1952 and thus are not re-

Indexes of Average Freight Rates For Inter- and Intrastate Rates by Commodity Group (1950=100)

Item	Index 1947	1948	1949	1950	1951	Percent Increase 1951 over 1947	Approx. Standard deviation
Interstate rates							
All commodities	79	93	99	100	102	29	.5
I. Products of Agriculture	80	93	98	100	102	28	.5
II. Animals and Products	77	93	99	100	102	33	.5
III. Products of Mines	82	91	98	100	102	24	.5
IV. Products of Forests	78	92	98	100	102	31	.5
V. Manufactures and Miscellaneous	78	94	101	100	102	31	.5
Intrastate rates							
All commodities	82	93	99	100	102	24	.5
I. Products of Agriculture	80	92	97	100	102	28	1.0
II. Animals and Products	83	96	98	100	103	24	1.5
III. Products of Mines	84	93	99	100	102	21	.5
IV. Products of Forests	84	95	98	100	102	21	1.0
V. Manufactures and Miscellaneous	80	95	100	100	102	28	.5

Ratios of Freight Revenues to Values at Destination By Commodity Groups[1]

Year	Total	Products of agriculture I	Animals and products II	Products of mines III	Products of forests IV	Manufactures and miscellaneous[2] V-VI	L.C.L. VII
1928	7.90	10.01	2.93	26.74	12.96	5.42	6.94
1930	6.67	11.53	3.46	33.16	18.26	4.02	4.13
1933	10.66	13.67	6.99	35.95	21.12	6.30	9.19
1936	8.47	9.57	4.10	30.44	15.38	5.51	8.46
1939	8.43	12.24	4.59	28.29	13.78	5.30	8.33
1941	7.26	10.25	3.71	29.12	12.65	4.66	7.27
1946	5.46	5.58	2.68	23.13	12.80	3.88	5.46
1950	5.51	6.33	2.88	28.59	12.66	4.27	1.85

[1] For the years 1928-46 the base was 157 commodity classes; in 1950 it was 262 such classes.
[2] Includes forwarder traffic.

flected in the present study's showing.

Meanwhile, the bureau warned that data in the study "cannot properly be used to indicate whether freight rates are too high or too low, or as an indication of the reasonableness of rates."

Labor & Wages

"No Evidence for Wage Award"

"Productivity" increase based only on "vague and unsupported statements," rail spokesmen say

Spokesmen for Eastern, Western and Southeastern railroads have sharply criticized Paul N. Guthrie, professor of economics of the University of North Carolina, referee in the recently-concluded "improvement factor" wage case (*Railway Age*, March 23, page 11).

Stating that the unions "had produced no evidence at the hearings to justify such an award," L. W. Horning, D. P. Loomis and W. S. Baker went on to point out that the carriers were required by stipulation to put the four-cent-per-hour increase into effect.

"Professor Guthrie first found a policy to exist which had never been adopted by the wage stabilization authorities," said their joint statement—issued following a Chicago meeting on March 25 of the three regional committees which represented the carriers during the case. "No one could have known that better than Professor Guthrie," they continued, "for he had served as a member of the Wage Stabilization Board. Having made that false assumption, he now makes a wage award supported only by vague generalities and false assumptions when the facts and figures were in evidence before him on the record.

"The fact is that earnings of railroad employees have more than kept pace with earnings of employees in manufacturing industries, with the cost of living, and with increased productivity—either of the railroad plant alone or the national economy as a whole.

"Professor Guthrie rejected the annual improvement factor and productivity theories, but based his award on a vague and unsupported statement that the real wage position of railroad employees should not be allowed to deteriorate—despite conclusive evidence in the record that the real wage position of railroad employees had not deteriorated but had steadily improved.

"Thus, Professor Guthrie, in a mood of generous compromise, has saddled the traveling and shipping public with an increased cost approximating $120,000,000 which is completely unjustified on all of the evidence before him and which, of all industries, the railroad industry can least afford."

INTERIOR VIEW of the Pennsylvania's new ticket office at 1507 Walnut street, Philadelphia. The new air-conditioned office, opened on January 26, replaced facilities maintained since 1936 at 1417 Chestnut street. It employs improved electronic facilities for handling reservations.

Wildcat Strike Ties Up Union Railroad

An unauthorized strike of approximately 4,500 operating employees brought to a halt virtually all operations on the Union Railroad (Pittsburgh) at midnight on March 30, and also forced a shutdown of the Homestead, Clairton, Duquesne and Braddock plants of the parent United States Steel Corporation.

The strike, which involves employees represented by the Brotherhood of Railroad Trainmen, was allegedly called to protest 10-day suspensions given to two conductors who were accused of leading a slowdown of railroad operations. B.R.T. officials admitted that the strike was unauthorized, but said the men would stay out until the conductors are reinstated and reimbursed for their lost pay.

U.S. Steel Spokesmen said the strike will cost approximately 25,000 tons of steel production for every day the plants are closed, although the shutdown was carried out in orderly fashion and a few trains are being operated to steel plant boiler houses. Other industrial plants in the area, which are also served by the Union, were also threatened with a shutdown as a result of the strike.

The National Mediation Board has sent a mediator to Pittsburgh to aid in ending the walkout.

Upon representations of the Defense Transport Administration the Interstate Commerce Commission issued Order 893. The order, effective at 12:01 a.m., April 1, was designed to release vessels loaded with ore consigned to industries affected by railroad strikes. It permits railroads serv-

ing ports, including Great Lakes ports, where ores are dumped from vessels, to load and hold cars with such ore, free from demurrage or storage after a permit is obtained. The permit agent is Charles W. Taylor, director of the commission's Bureau of Service.

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended March 28 totaled 715,337 cars, the Association of American Railroads announced on April 2. This was an increase of 14,195 cars, or 2 per cent, compared with the previous week; a decrease of 10,150 cars, or 1.4 per cent, compared with the corresponding week last year; and a decrease of 40,098 cars, or 5.3 per cent, compared with the equivalent 1951 week.

Loadings of revenue freight for the week ended March 21 totaled 701,142 cars; the summary for that week, compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, March 21

District	1953	1952	1951
Eastern	128,454	132,618	138,438
Allegheny	147,434	151,918	160,108
Pocahontas	49,532	56,147	59,504
Southern	130,489	133,507	133,469
Northwestern	75,754	74,047	75,281
Central Western	110,994	111,694	120,500
Southwestern	58,485	60,078	61,578
Total Western Districts	245,233	245,819	257,359
Total All Roads	701,142	720,009	748,787
Commodities:			
Grain and grain products	43,084	45,354	45,632
Livestock	6,097	7,136	6,552
Coal	109,910	131,775	137,988
Coke	14,972	15,596	15,702
Forest products	44,658	44,006	46,299
Ore	19,687	20,483	19,283
Merchandise l.c.l.	72,194	75,480	83,510
Miscellaneous	390,540	380,179	393,912
March 21	701,142	720,009	748,878
March 14	700,108	708,975	745,128
March 7	685,016	713,112	749,522
February 28	668,805	755,844	785,861
February 21	689,553	683,551	734,845
Cumulative total 12 weeks	8,169,171	8,614,905	8,738,523

Law & Regulation

Excise Tax "Punitive," Says Lakes Board

Abolition of excise taxes on common carrier transportation, and modification of sharp freight car demurrage penalties, were asked by the Great Lakes Regional Advisory Board at its meeting in Detroit March 24-25.

The "wartime" tax on transportation came in for especially heavy criticism from George J. Bleibtrey, new chairman of the board's Executive Committee, who asserted that the surcharge "is not only a nuisance but is punitive. It has discouraged the railroads, the shipper, the public. Each and all have suffered from it. Last year it wantonly extracted nearly $700 million from the public, through the various forms of transportation. We should go beyond resolutions against it. Each of us should return to his home and urge his industry, his trade association and all friends to demand of Congress that it repeal this wartime tax measure."

The board likewise went on record as opposing a number of transportation bills now pending before Congress; and as favoring S.905, to give the Interstate Commerce Commission power to amend or revoke certificates and permits held by regulated water lines. It also approved "any measure" that might be introduced calling for discontinuance of the Inland Waterways Corporation.

Principal speakers at the meeting were Karl A. Borntrager, vice-president of the New York Central; W. E. Callahan, of the Car Service Division of the Association of American Railroads; and William H. Schmidt, Jr., executive editor of *Railway Age*.

The board elected Henry J. Commes, traffic manager, Nash-Kelvinator Corporation, Detroit, as president; K. S. Wright, general traffic manager, Carborundum Company, Niagara Falls, N.Y., vice-president; George J. Bleibtrey, traffic manager, Motor Wheel Corporation, Lansing, Mich., chairman of the Executive Committee; and J. A. Jacobson, Cleveland Chamber of Commerce, secretary. The next meeting will be held in Toledo, June 23-24.

Commerce Department Drops Transport Unit

The Office of Transportation, which has been in the Department of Commerce's transportation set-up since November, 1950, has been abolished.

The office had been part of the staff organization of the Under Secretary of Commerce for Transportation. The change does not affect that position which is now held by Robert B. Murray, Jr.

It was stated at the department that one effect of the abolition will be to lay off 8 of the 23 persons who were employed in the office. The other 15 will be retained for transport work on the under secretary's staff. Paul F. Royster was director of the office.

The abolition order, dated March 30 and effective immediately, provided for a new position of assistant to the under secretary. It also provided for continuance of the Transportation Council to serve in an advisory capacity to the under secretary. (*Railway Age*, March 30, page 13.)

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended March 28 were announced by the Association of American Railroads on April 2 as follows:

	Surplus	Shortage
Plain Box	6,298	1,189
Auto Box	83	39
Total Box	6,381	1,228
Gondola	5,620	86
Hopper	49,983	72
Covered Hopper	200	0
Stock	7,137	0
Flat	4	606
Refrigerator	1,241	10
Other	413	0
Total	70,979	2,002

In Congress

Fast-Rate-Raise Bill Introduced in Senate

A bill to permit prompt increases in railroads rates as costs rise has been introduced in the Senate.

It is S.1461, introduced by Senator Johnson, Democrat of Colorado, for himself and Senator Bricker, Republican of Ohio. While its provisions would be more restrictive than those of similar bills which failed of enactment last year, it is expected to have the support of the railroads.

The bill would add to the Interstate Commerce Act a new section—15c. It would provide that, within 60 days after the filing of a petition by carriers seeking a general increase in rates by reason of increased operating expenses, the I.C.C. would enter an interim order authorizing rate increases which, in the commission's opinion, are necessary to permit the carriers to earn adequate revenues. Factors the commission would be required to consider would include the necessity for the carriers to "maintain sound credit and attract equity capital."

After the interim increases became effective, the commission would be required to proceed with an investigation of the increases proposed by the carriers. If increases authorized by the commission's final decision were less than those authorized in the interim order, the carriers would re required to make refunds.

Other recently-introduced bills, together with their sponsors, include those listed below:

S. 1501, to give the Interstate Commerce Commission power to revoke or suspend water carrier certificates and permits; and S.1502, to extend the records and reports provision of the Interstate Commerce Act to persons furnishing locomotives (Tobey of New Hampshire, by request).

(Continued on page 93)

Here's Proof of Performance...

1,000 pressure-creosoted fence posts installed along M-K-T right-of-way in 1922

— *Nearly 99% are still in service*

L. C. HAZLETT, chief tie and timber inspector for the Missouri-Kansas-Texas Railroad, inspects some of the 31-year-old fence posts in the right-of-way at Ray Junction, Texas. The fence is located from ⅛ to ¼ mile from the tracks.

● Whether it's cross ties, poles, bridge timbers or fence posts along the right-of-way, pressure-treatment with Creosote Oil is the surest way to get maximum service and minimum replacement rate.

In 1922, the Missouri-Kansas-Texas Railroad erected a fence on its property at Ray Junction, Tex., using 1000 pine posts pressure-treated with Creosote Oil at 6 pounds retention. To date, between 985 and 990 of the original posts are still in service, according to L. C. Hazlett, chief tie and timber inspector for the M-K-T.

The posts are still in excellent condition, with no sign of rotting or splitting, and Mr. Hazlett is expecting at least five years' more service.

The experience of the M-K-T is typical of the kind of service records established by wood that has been treated with Creosote Oil. It's no wonder Creosote Oil is the first choice of the wood preserving industry.

You'll get best results with wood that has been pressure-treated with U·S·S Creosote Oil —the product of continuous processing in the world's largest tar distillation plant. For complete information, contact our nearest Coal Chemical sales office or write directly to United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pa.

CLOSEUP of one of the posts, showing its excellent condition with no sign of rotting or splitting apparent.

U·S·S CREOSOTE OIL

3-605

UNITED STATES STEEL

ROCK ISLAND
FRAGILE

12 NEW BUDD CARS FOR ROCK ISLAND'S ROCKETS

● They're all head-end cars—seven RPO's and five baggage cars. And like every car Budd has ever built, they're constructed of stainless steel.

That means that for any required strength, they're lighter. Less car weight to haul.

They'll never need paint because of the ability of stainless steel to resist corrosion. And they need no surplus material to compensate for rust.

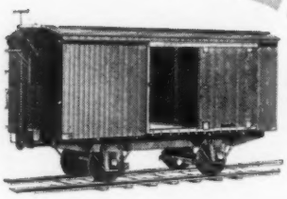
And they've got the "stuff" to take the daily grind of long-distance, high-speed service with an availability that, with Budd cars, is invariably over 95%.

The Budd Company, Phila. 15.

Budd

PIONEERS IN
BETTER TRANSPORTATION

Good in their day...
but their day
is gone forever!



TODAY YOU'LL WANT FREIGHT CARS WITH THE FLOOR OF THE FUTURE...

NAILABLE STEEL FLOORING

The concentrated weight of lift trucks in boxcars . . . the impact of mechanical loading devices in gondolas . . . NAILABLE STEEL FLOORING withstands them all! Because of its channel form, N-S-F, when welded to the car structure, actually reduces stresses of impact shocks at critical points in the underframes.

Yet remember: N-S-F carries *blocked* and *skidded* loads, too! It holds them with maximum security. And its nail-holding efficiency is *not* reduced by repeated nailing operations. NAILABLE STEEL FLOORING makes every gondola a double-duty car—capable of handling rough freight as well as finished freight requiring blocking.

Made from tough N-A-X HIGH-TENSILE steel, N-S-F adapts *all* cars to today's needs.

Only NAILABLE STEEL FLOORING withstands all ways of loading—and carries every kind of load.

53-SF-2A
N-S-F for NAILABLE STEEL FLOORING
SAFER-STRONGER

Sales representatives in Chicago, Philadelphia, St. Louis, Atlanta, Omaha, Denver, San Francisco, Montreal and New York.

GREAT LAKES STEEL CORPORATION
STEEL FLOOR DIVISION
Ecorse, Detroit 29, Mich.

NATIONAL STEEL CORPORATION

PATENTS PENDING

All about 'G's*

New test device reveals facts nobody knew

*"G", the unit of change in velocity which is equal to the pull of gravity or 32.2 feet per second per second.

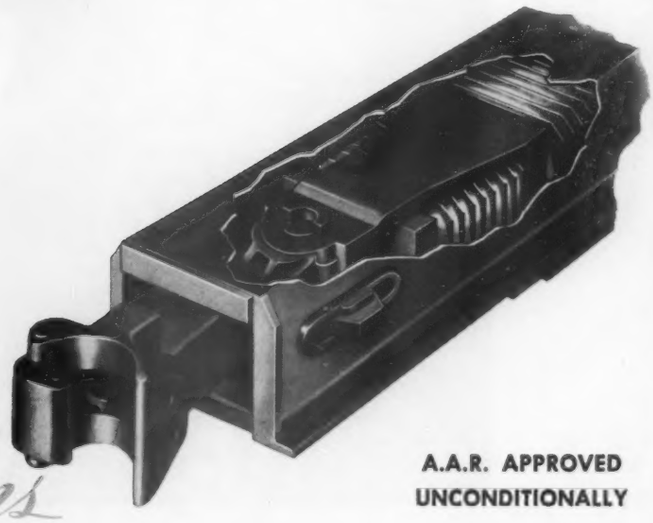
This new test device, the Waugh-Gould Coupler Dynamometer, provides the first accurate means of measuring coupler forces and reveals for the first time the stress rises that occur under car impact in 100ths of seconds.

With this new test instrument it has been possible, for the first time, to measure the rate of stress rise or "G" changes for cars under impact...to discover exactly how Twin Cushions 'take the bite out of impact.' The reason shown is this: Rate of stress rise for Twin Cushion is *far* less than for conventional gears indicating a corresponding shock reduction. It's the shock of impact that damages lading. As proved by the Dynamometer, Twin Cushions greatly reduce that shock. So, for shock reduction, for lading protection,

for "G" control...Specify

WAUGHMAT

TRADE MARK REGISTERED *Twin Cushions*



A.A.R. APPROVED UNCONDITIONALLY

WAUGH EQUIPMENT COMPANY, New York • Chicago • St. Louis • Canadian Waugh Equipment Company, Montreal

THE WALL STREET JOURNAL.
NEW YORK, THURSDAY, JANUARY, 29, 1953
VOL. CXLI NO. 24
10 CENTS
What's News—
Business and Finance
World Wide
Newsprint
Business Bulletin
Tote-Your-Own
Folks With Freight To Carry Are Moving More of It Themselves
Play Time
Sporting Goods Makers Get Lift from Croquet, Bow-and-Arrow Fever
Water Sports Also Bring a Brisk Rush of Orders; Baseball Business Slips
Miss Connolly Helps Tennis
Pennsylvania R R 1952 Net Rose; Gross Off from '51
President Says Increase Was Due to Reduced Cost of Operation
Freight Revenues Declined
By a WALL STREET JOURNAL Staff Reporter
PHILADELPHIA—The Pennsylvania Railroad's net income for 1952 rose to $36,981,364, equal to $2.81 a share, from
Walter S. Franklin, president, told a press conference the higher earnings were due to reduced cost of operation. Lower maintenance charges accounted for the major part of the $27,059,918 decline in operating expenses, owing largely to improved efficiency resulting from its dieselization and modernization program, he explained.
Freight revenues
cost the road about $30 million to $35 million, while coal stoppages accounted for an additional $6 million in lost revenues. About $27 million of the total strike loss was made up by higher freight rates, which took effect last May 2.
The Pennsy president said that while the road "did better than we expected" in 1952, "we are not doing anything like we should be doing." He said net income per dollar of gross revenues was only 3.59 cents last year, and return on capital investment was 3.06%. to have at least a 6% return," he
has "great hopes 1953, and well."
THE WALL STREET JOURNAL
Thursday, January 29, 1953

574 { BALDWIN diesel-electric locomotive units

Helped the Pennsy Do This

Since the start of the Pennsylvania Railroad's $651,400,000 postwar improvement program, they have acquired 574 Baldwin-Westinghouse Diesel-Electric locomotive units. These Baldwins have contributed greatly to the improved efficiency which was reflected in the Pennsy's 38% increase in net income.

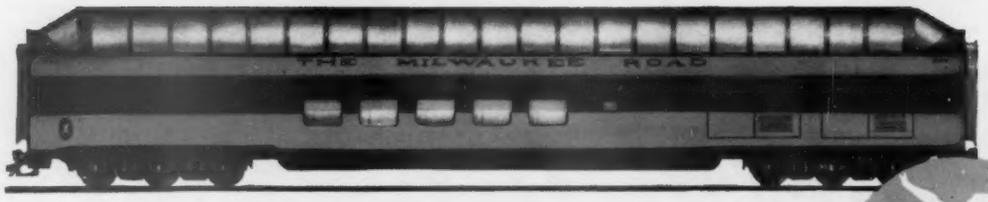
BALDWIN-Westinghouse

DIESEL-ELECTRIC LOCOMOTIVES

...they're thrifty!

NEW SUPER DOME CARS
on the Twin Cities Hiawathas

on the Olympian Hiawatha



use

CLASP

BRAKES

with

AMERICAN BRAKE SHOES

The Milwaukee Road has added ten new Super Dome cars to their already fine equipment. Designed for passenger travel enjoyment, these are the largest dome cars made—comfortably seating 68 passengers on the spacious observatory deck and 28 in the well-appointed Cafe Lounge on the lower deck. The designation "Super" applies to the mechanical design as well, where only the best was specified. That's why these Super Domes—like most luxury equipment—are equipped with clasp brakes with metal brake shoes . . . for safe, dependable and economical stops.

AMERICAN Brake Shoe COMPANY

1565

BRAKE SHOE AND CASTINGS DIVISION

COUPLERS and YOKES ACROSS THE CONTINENT!

by

NATIONAL

The name **NATIONAL** is identified with COUPLERS and YOKES on rolling stock in the consist of just about every train in the mighty fleets operating daily throughout the continent.

Dependability, under all service conditions, has been established over the years through National's applied engineering development — backed up by quality-controlled production.

That background, with prominence in the development of advanced design now in use, assures maximum performance and economy for railroads' current "speeded-up" operation.

A-7271

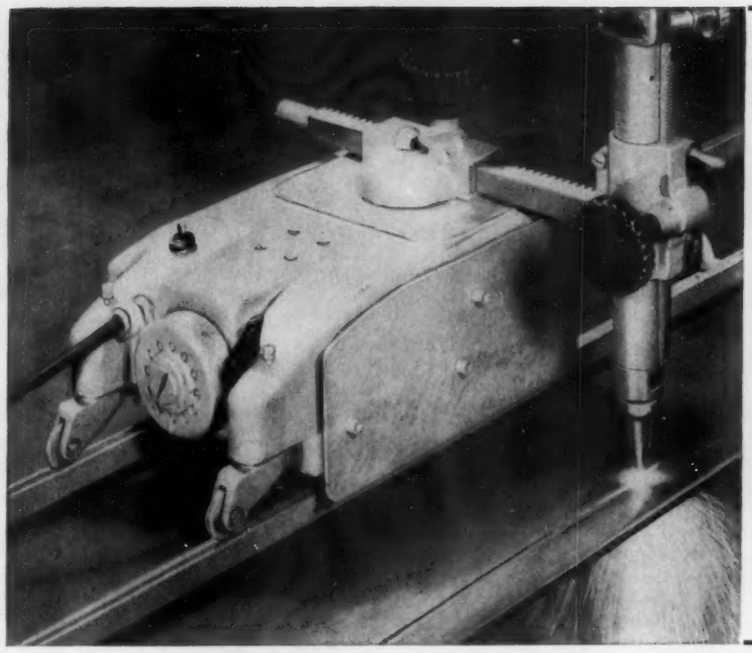
NATIONAL
TECHNICAL CENTER
Cleveland
To further serve the Carriers and Related Industry!

as shown

also
The AAR STD. H TIGHTLOCK COUPLER
and
ATTACHMENTS
Proven for high value in passenger service

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY
Cleveland 6, Ohio
COUPLERS • FREIGHT TRUCKS • YOKES • FRICTION AND RUBBER DRAFT GEARS • JOURNAL BOXES AND LIDS

NATIONAL EST 1898 PRODUCTS and TECHNICAL SERVICES



Specifications
For the Many-Purpose
OXWELD CM-45 Machine Carriage

Overall length	13⅝ in.
Overall width	7⅛ in.
Height to top of machine	4½ in.
Weight, equipped with blowpipe (illustrated)	33¼ lbs.
Speed Range	4 to 32 in. per min.
Circle-cutting diameters	2 to 54 in.
Motor	115-volt, 60-cycle A.C.

Do All These Jobs with the OXWELD CM-45

Trade-Mark

Plate-Edge Preparation **Bevel-Cutting** **Automatic Welding**
Circle-Cutting **Straight-line Cutting** **Flame-Hardening**

Here's the low-cost portable machine carriage you have been looking for! You'll get more speed, flexibility, efficiency, and economy in a wider variety of metal-cutting, flame-treating, and mechanized welding jobs. The lightweight, labor-saving OXWELD CM-45 machine handles practically all machine-carriage requirements found in railroad shops, and supplements the heavier equipment used for bigger jobs.

For further information, ask for form 7839. Fill in and mail the coupon at right to Oxweld Railroad Service Company, a Division of Union Carbide and Carbon Corporation, 230 N. Michigan Ave., Chicago 1, Ill.

The term OXWELD is a registered trade-mark of Union Carbide and Carbon Corporation.

Oxweld Railroad Service Company
Room 1320
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Please send me, free of charge, a copy of Form 7839.

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(Please Type or Print Your Name and Address)

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Complete railroad communication systems . . . taxi fleet installations . . . fire and police departments . . . construction projects . . . 2-way industrial applications, etc. You name it.

Each one of these field men is backed by the 4500 other Bendix engineers, who have made Bendix the "Name Millions Trust."

In addition to offering the latest type of Mobile equipment . . . these engineers give all technical help in obtaining your license and complete system engineering. Call or write today.

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THE NAME Bendix AVIATION CORPORATION MILLIONS TRUST

Bendix THE MOST TRUSTED NAME IN Radio

New Hyatt design gives you a superior bearing for your diesels!

IMPROVED PINION-END BEARING SMOOTHS THE WAY FOR HIGHER STANDARDS OF TRACTION MOTOR PERFORMANCE!

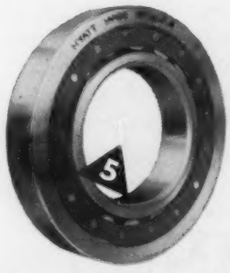
- No rubbing contact between cages and race flanges
- Improves flow of lubrication
- New hardened, roller-riding, steel cage
- Safer
- Longer lasting
- Facilitates inspection of all operating surfaces

Hyatt's new design eliminates all rubbing contact between the race flanges and the bearing cage.

Unrestricted flow of lubricant to all bearing parts is achieved by new cage design.

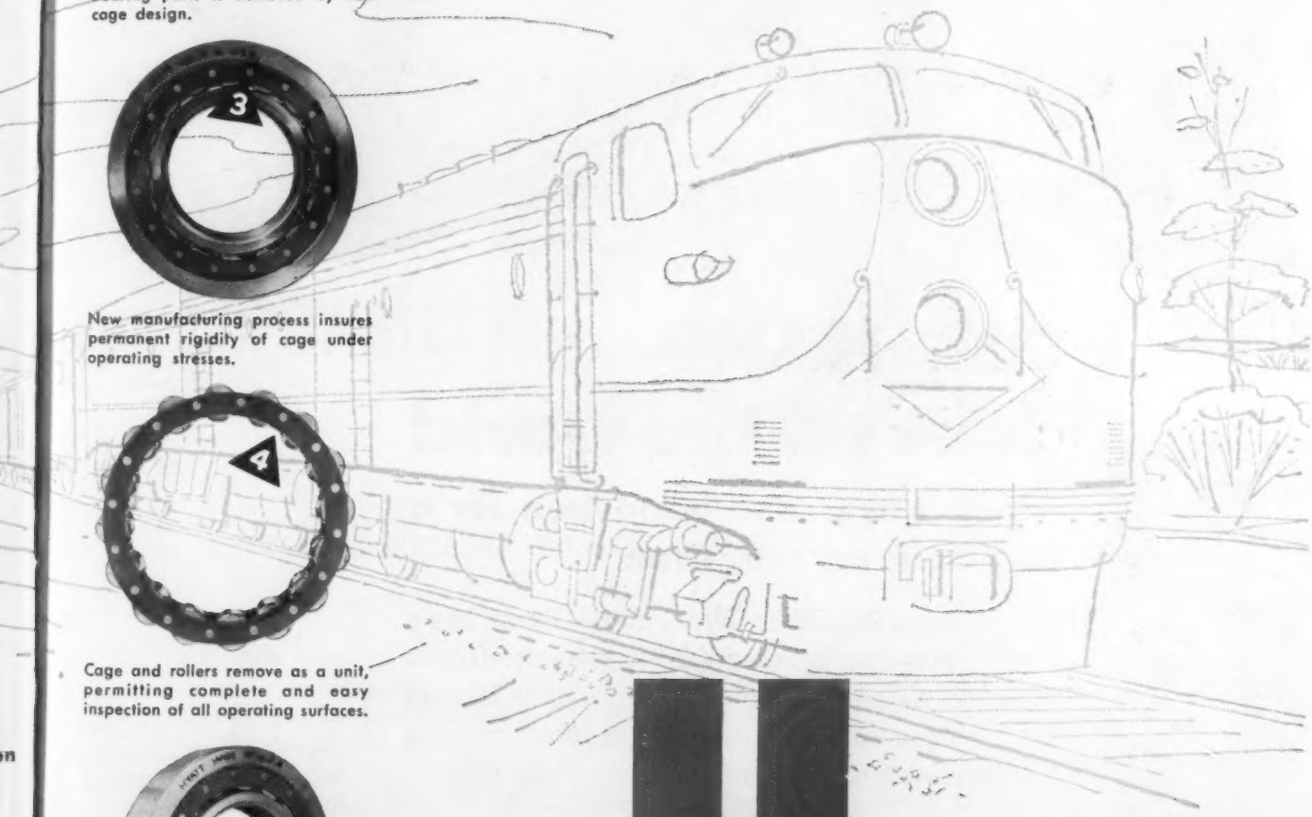
New manufacturing process insures permanent rigidity of cage under operating stresses.

Cage and rollers remove as a unit, permitting complete and easy inspection of all operating surfaces.



Rings and bars of the new steel cage are heat-treated to give the new bearing greater wear resistance.

For the first time in traction motor applications, a pinion-end bearing is available with the combined advantages of a "roller-riding" cage and maximum capacity rollers. The product of many months of extensive research, this new Hyatt bearing is specifically designed for substantially longer life at peak operating efficiency. Rubbing contact between cage and race flanges—a source of difficulty in earlier-type bearings—is completely eliminated by Hyatt's new cage design, and flow of lubricant to all parts of the bearing is greatly improved. Rings and bars of the new steel cage are hardened for greater resistance to wear, and a new assembly process assures permanent rigidity of the cage under operating stresses. In addition, cage bars conform to the shape of the rollers, and cage and rollers remove as a unit—permitting complete and easy inspection. For further information, write to Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.



FOR TRACTION MOTOR ARMATURE SHAFTS

HYATT

ROLLER BEARINGS

ONE HAND does all the work!

—that leaves one hand free for a safe hold on grab-iron

The Equipco Non-Spin Wheel Hand Brake has a single operating member (the brake wheel)—no levers or gadgets to move or figure out. Get all the facts on this safe, new brake that protects trainmen and equipment.

UNARCO

UNION ASBESTOS & RUBBER COMPANY

Equipco Hand Brake Department

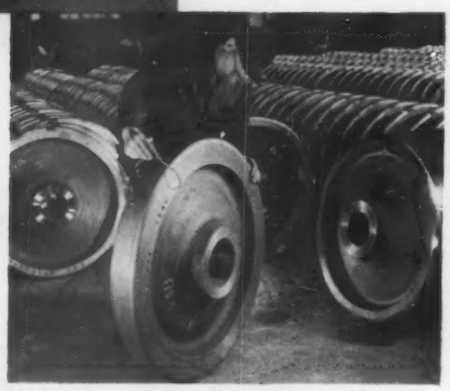
332 SOUTH MICHIGAN AVENUE • CHICAGO 4, ILLINOIS

Edgewater rolled steel Wheels

precision-made by modern methods

To fully meet exacting AAR standards, Edgewater has developed many precision practices for the manufacture of rolled steel wheels for freight cars, passenger cars and Diesel locomotives.

The steel is made in Edgewater's Open Hearth Furnaces, employing the most advanced metallurgical practice. Ingots are bottom-poured, "control" cooled, and "sliced" into blocks. From these blocks, wheel blanks are forged and rolled to shape on rolling mills that produce in the metal a firm homogeneous grain structure. Final machining on modern precision wheel lathes completes the wheel.



During the manufacture of Edgewater Rolled Steel Wheels, frequent checking is employed to insure high quality. Final inspection before shipment makes certain of complete conformity with AAR specifications.

Edgewater Steel Company

PITTSBURGH, PENNA.

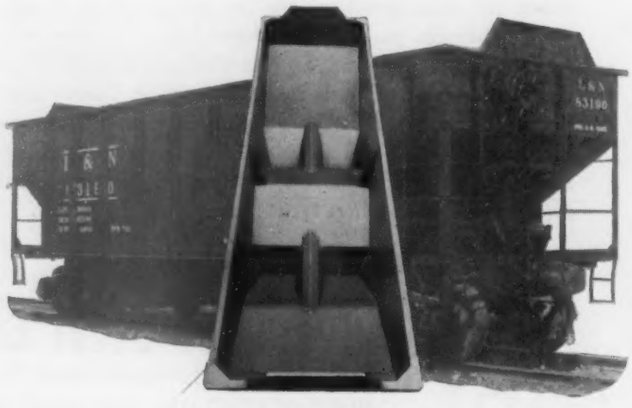
MAKERS OF ROLLED STEEL TIRES, WHEELS and DRAFT GEARS

THE ALL-WELDED HOPPER CAR IS SERVICE PROVED

Economical operating costs and on-the-line availability earned the second order from the L & N. An exclusive feature is the increased stiffness of the side construction which extends service life by minimizing vibration hazards and enables this hopper to give more service miles with less maintenance.

CORROSION IS MINIMIZED

Through the extensive use of welding, maintenance costs due to corrosion damage have been cut to the bone. The all-welded construction also permits a smoothness of interior design that enables it to empty quickly with a chute-like action. All the way through, the all-welded hopper is designed for rugged dependability.



Take a tip from 5,000 hoppers

THE FIRST ORDER FROM THE L & N—2,000 HOPPER CARS

THE SECOND ORDER—3,000 OF THE SAME HOPPER CARS

Economical, dependable operation to meet the exacting requirements of modern freight service! This is the way the all-welded hopper earned its repeat order from the L & N. Toughness in a 50-ton hopper car must be built in to stand up under the punishing conditions imposed by loading, unloading with a shaker, corrosion, and switching.

To find the right combination of design, construction, and material that would best meet these rugged "on-line" demands, Pullman-Standard engineers worked closely with the L & N. And through the most advanced production line methods, the Pullman-Standard all-welded hopper became a reality. The manufacturing and engineering ability of the world's largest car builder combine quality with production-line economy in this outstanding freight car.

The superiority of the design and construction of these cars is being demonstrated on the L & N. Its economical operating costs and on-the-line availability have been service-proved under the most grueling operating conditions.

Let one of our experienced representatives show you how these all-welded hoppers meet your requirements for better service and lower maintenance costs.

YOUR NEEDS CREATE THE PULLMAN "STANDARD"

PULLMAN-STANDARD

CAR MANUFACTURING COMPANY

SUBSIDIARY OF PULLMAN INCORPORATED

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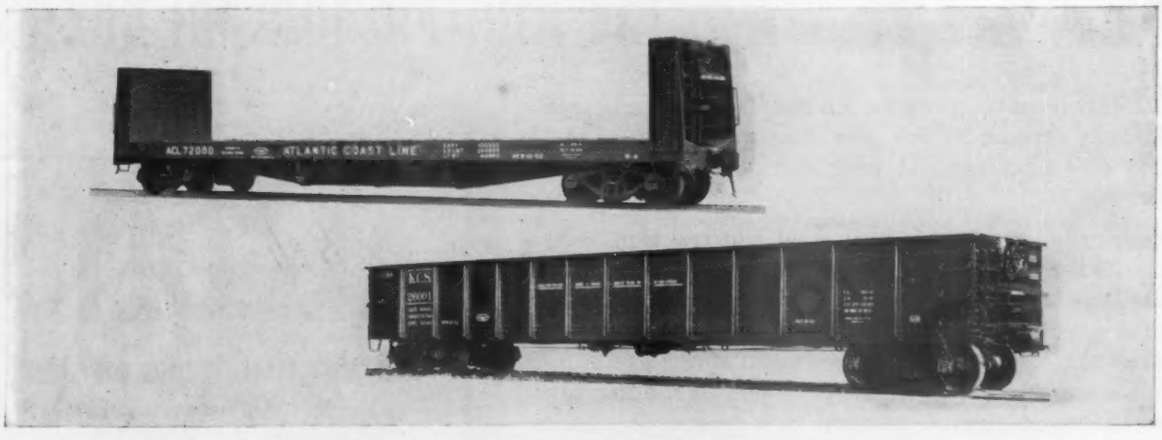


FREIGHT CARS BUILT FOR RUGGED SERVICE

In other types of freight cars built by Pullman-Standard, quality is a known quantity. Top: The 50-ton, all-steel pulpwood cars with ¼" plate floors and built-up end racks.
Bottom: Three roads, the MKT, KCS, and CGW, pooled orders for a production run of 1200 gondolas.

ONLY TWO PARTS

ALCOLID® the lifetime journal box lid

With only these two parts the ALCOLID is one of the simplest and most dependable lids ever designed, giving up to 17 years of freight service* with only negligible evidences of wear.

The sturdy, full-section all-steel construction of the ALCOLID has no thin parts to rust away. The square-headed, locked retaining pin never rotates, thus eliminating wear on the eyes of the hood. Fully articulated, the ALCOLID provides tight closure; a rugged, torsional spring exerts fifty pounds pressure to prevent lid vibration. In addition to all this, ALCOLIDS can be installed in a matter of seconds.

Why not take advantage of all these features? Send for full information to your ALCO sales representative in New York, Richmond, Cleveland, Chicago, St. Louis, St. Paul. San Francisco.

*according to actual test runs

ALCOLID
PATENTED
RAILWAY STEEL-SPRING DIVISION
AMERICAN LOCOMOTIVE COMPANY

MORE MILLIONS SPENT FOR RAILROAD LABORATORY

Any railroad man will tell you that this newly-consolidated plant at Hammond, Indiana turns out the very highest quality freight car products . . . *but to the old-timers the name "Standard" represents more than quality alone!*

To a man who has lived railroading all his life, every *Standard* product contains a bit of history; he remembers the first steel roof and how it grew as *Standard* continuously, ceaselessly developed it into today's Diagonal Panel Roof; he remembers the continuing improvements in the ends, floor plates, coupling devices and other products of *Standard's* constant research and testing.

To the old-timer, Standard Railway Equipment Manufacturing Company's new plant is another milestone in a lifetime of devotion to laboratory work for the railroads . . . . . and to us at *Standard* it is an investment not only *for* railroading, but *in* America's Railroads.

Standard

RAILWAY EQUIPMENT MANUFACTURING COMPANY

310 S. MICHIGAN AVENUE • CHICAGO • 247 PARK AVENUE • NEW YORK

NEW YORK CE

Boston & Albany Boosts Efficiency 25% With Help of Alco-GE Diesel-Electrics

The Boston & Albany district of the New York Central System has increased train speeds and operating efficiency 25% through dieselization. Alco-GE locomotives comprise 72% of this road's assigned motive power.

The B&A completed dieselization in Feb., 1951 as an answer to some of the steepest grades of the entire New York Central System. Paced by sturdy Alco-GE locomotives, this dieselization has meant, for example, a 60% increase in tonnage limits for the haul over the 1.65% Washington grade between Chester and North Adams Junction, Mass. Helper service has been eliminated, and haulage time reduced.

Alco-GE diesel-electrics have proved their worth on every B & A haulage job . . . from rugged switching chores to the crack passenger trains and fast symbol freights . . . modern motive power that symbolizes the progressiveness of this fine railroad.

113-308

Alco GE

AMERICAN LOCOMOTIVE
and
GENERAL ELECTRIC

Rolling Steel Doors

. . . more desirable from ANY STANDPOINT!

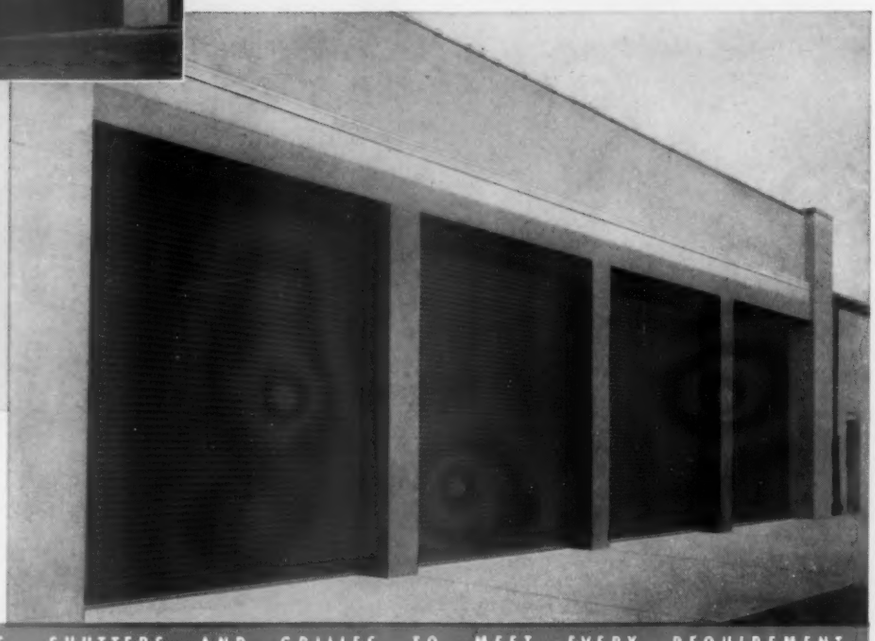
For unusual openings, such as the one at the left, and normal truck openings in any type of building, there is no door that offers as many desirable features as a good quick-opening, quick-closing, power operated rolling steel door. Their vertical, roll-up action occupies no usable space either inside or outside the door opening—no overhead obstructions to interfere with crane operations. No other type of door offers these inherent advantages of space economy and compactness in operation. In addition, rolling steel doors are permanent . . . their all-metal construction assures you a lifetime of continuous trouble-free service, and provides maximum security against intrusion and fire. When you select a rolling steel door, it will pay you to check the specifications carefully . . . you will find that the galvanized steel material for the interlocking curtain slats of Mahon Rolling Steel Doors is chemically cleaned, phosphated, and treated with a chromic acid solution to provide paint bond, and, that the protective coating of synthetic enamel is baked on at 350° F. prior to roll-forming. This is just one of the extra-value features of Mahon Rolling Steel Doors—you will find others. See Sweet's Files for complete information including Specifications, or write for Catalog No. G-53.

THE R. C. MAHON COMPANY

Detroit 34, Michigan • Chicago 4, Illinois • Representatives in all Principal Cities

Manufacturers of Rolling Steel Doors, Grilles, and Automatic Closing Underwriters' Labeled Rolling Steel Doors and Fire Shutters; Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms.

Above you see one of two Mahon Power Operated Rolling Steel Doors 30'-0" x 30'-0" installed in a General Electric Test Cell. At right are four Mahon Power Operated Rolling Steel Doors installed in truck openings of an enclosed shipping dock in a new plant for the Detroit Hardware Company.



ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

MAHON

Star Boarder in the Shops because of WEARMITES

It's the WEARMITES in Diesel engine oil . . . those "engine termites"—Grit, Dirt and Tarry Sludge . . . that foul up running and maintenance schedules. Where there's dirty oil—there you'll find WEARMITES—and the sound, sure way to eliminate them is . . . WIX ENGINEERED FILTRATION.

WIX ENGINEERED FILTRATION provides prescription filtration for your lubrication needs with proven types of filter cartridges, designed and engineered to meet the varying conditions posed by passenger, freight or yard operation. You may choose between interlapped white cotton thread construction, colored cotton threads or a new WIX filtrant of finely divided, high rag content, felted paper — hydraulically packed. Thus, you can key *your* filtration practice to suit your running conditions and your filter change schedule . . . always keeping lubricating oil "in the pink".

Solve your filtration problems with WIX Railroad Oil Filter Cartridges. Keep engines *out* of the shops *longer* . . . running *smoother* . . . and enjoy the economy of WIX ENGINEERED FILTRATION. Write for full particulars today!

ENGINEERED FILTRATION

Precision construction . . . controlled density . . . uniform quality . . . self-contained sealing gaskets and many other WIX *plus* features add up to WIX Engineered Filtration. Whether for Lubricating or Fuel Oil, crush-proof, non-collapsible WIX Filter Cartridges show a decided dollars and cents advantage for you.

LUBE wix FUEL

RAILROAD OIL FILTERS

WIX CORPORATION • GASTONIA, N. C.

WAREHOUSE STOCKS IN: GASTONIA • ATLANTA • NEW YORK • ST. PAUL • ST. LOUIS • SACRAMENTO

TYPE F COUPLER & YOKE

DESIGN FEATURES

1. **New Safety Shelf—to support mated coupler in event of pullout.**
2. **Interlocking—Guard arm and aligning wings similar to type H Coupler.**
3. **Reduced free slack.**
4. **Improved positive anti-creep.**
5. **Easier operation.**
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DEMOUNTABLE STEEL WHEELS FOR EVERY TRACK CAR

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Conform strictly to A.R.E.A. standards

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Unforeseen delays needn't disrupt operations if communications are clear, quick, dependable. Westinghouse railroad radio has solved many problems instantly, allowing dispatchers to save hundreds of operating hours.

In one instance*, a Westinghouse FE Railroad Radio saved hours of delay when a truck was abandoned on a spur track. In another instance, six hours were saved when a freight was cleared from a blind siding by using railroad radio. And in yard operations, minutes pyramid into hours of savings.

The Westinghouse FE railroad radio offers the utmost availability and dependability. It has exceptional clarity, meets or exceeds AAR and FCC standards. A full accessory line gives it flexibility to meet your needs. Write for further information: Westinghouse Electric Corporation, Railroad Communications Section, Dept. A-49, 2519 Wilkens Avenue, Baltimore 3, Maryland. Or call your Westinghouse representative today.

*Names and full details on request.

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The distinguishing characteristics of Westinghouse Friction Draft Gears are ample capacity, high shock absorption, and minimum recoil, thus assuring unsurpassed protection to Car Structures and Lading.

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FRICTION DRAFT GEARS
Certified A.A.R.

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FOR SPEED AND ECONOMY

At Mimico, Ontario, the Canadian National has installed G-R-S Syncrostep to remotely control 18 switch machines and 14 signals.

This new coded system is specifically designed for the remote control of large or small interlockings—

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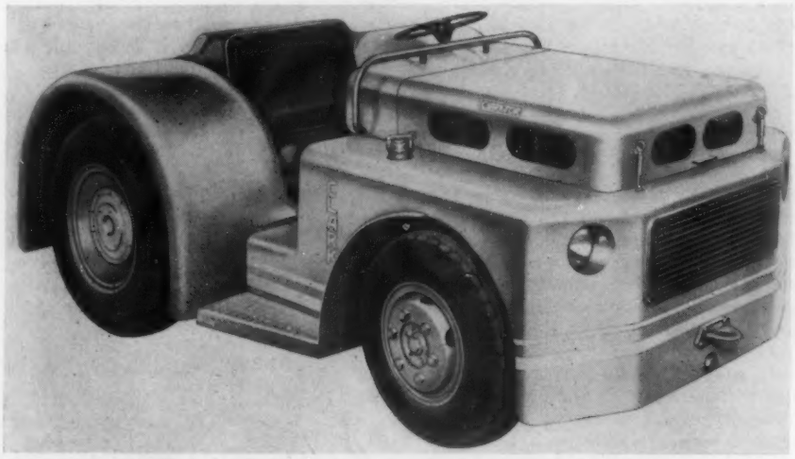
A-2638

What's New in Products

Steam Cleaner

For companies with already installed steam lines, the Malsbary Manufacturing Company, Oakland, Cal., has marketed a new steam cleaner which is designated Model 51. This cleaner has no fire box and gets its heat and pressure from steam lines used for regular production and heating. At full capacity, the unit delivers 200 gal. of hot solution per hour at temperatures up to 212 deg. F., and at pressures up to 90 psi. The solution tank holds 50 gal., which is enough for four to six hours operation without refilling. A variable-volume pump enables the operator to balance the solution volume to the existing steam volume to keep a steady, high-pressure cleaning stream, even when the steam is low.

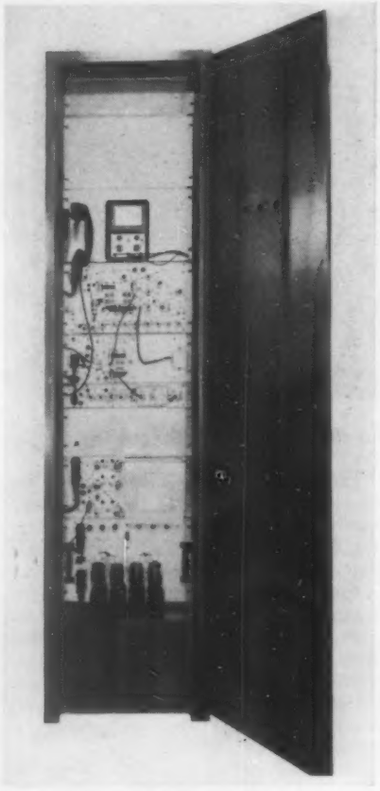
The Model 51 comes equipped with 25 ft. of wire-braid steam hose and a full-swiveling, cool handgrip steam gun, capable of twisting to clean hard-to-reach spots without kinking the hose. A patented high-pressure nozzle is said to prevent billowing of the cleaning stream as it leaves the gun, thus increasing the cleaning force. The cleaner can be ordered either stationary or portable, for operation from 110-volt service. The portable type is mounted on two 12-in. rubber wheels and one 8-in. rubber-tired swivel with tow bar•



Clark 12,000-lb. Towing Tractor

A full drawbar rating of 12,000 lb. is claimed for the new "Clarktor-120" being introduced by the Clark Equipment Company, Battle Creek, Mich. Features of the new tractor include a Chrysler 16A engine, fluid coupling, exclusive Clark axle design and a low silhouette. The 6-cylinder engine develops 114 brake horsepower at 3,200 r.p.m It has a displacement of 265 cu. in., and provides 215 ft. lb. maximum torque. The fluid coupling and the engine are designed to provide greater horsepower at low engine speed, which means less wear and longer life for the power unit.

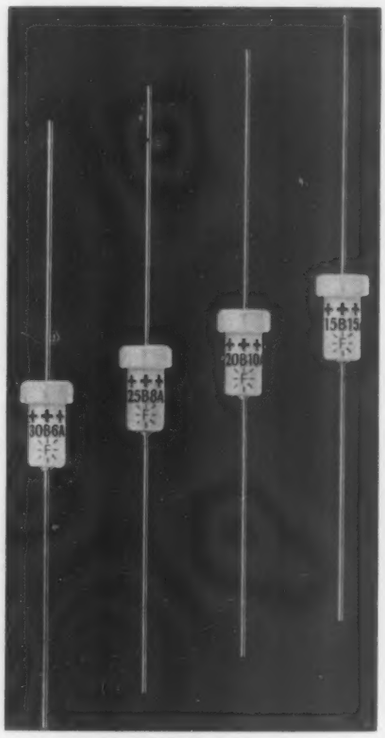
The "Clarktor-120" has four speeds forward, and one in reverse, with a maximum forward speed of 16.3 m.p.h. A special heavy-duty transmission of Clark design is used together with a rear axle embodying double reduction gearing with the final reduction gearing with the final reduction of the planetary type mounted in the wheels•



Microwave Equipment

A new 2,000-megacycle microwave system providing 30 voice channels or equivalent telegraph functions (15 per voice channel), by use of the multiplex equipment, has been introduced by Westinghouse Electric Corporation, Pittsburgh. Complete point-to-point systems are offered, including all types of connected terminal equipment. The frequency-division multiplex equipment (Type FJ) was designed specifically for use with the microwave equipment (Type FR), and provides maximum flexibility of arranging various combinations of services on the channels. The basic units of the Type FR microwave radio equipment are the same for both terminal and repeater station assem-

blies. Either type of assembly requires a single fixed rack or cabinet, and each is readily changeable from one type of operation to the other to facilitate system expansion•



Tantalum Capacitors

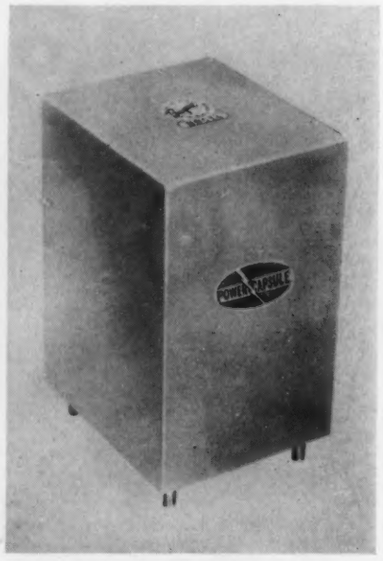
Tantalum electrolytic capacitors, for telephone and railway signal surge service, are now in commercial production and available in quantity from the manufacturer, Fansteel Metallurgical Corporation, North Chicago, Ill. These capacitors are intended for applications where unusually stable characteristics are required and space is at a premium. Now available are 22 standard capacitors ranging from 1.5 to 30 microfarads capacity, with working voltages up to 125 volts d.c.•

Telegraph Rectifier

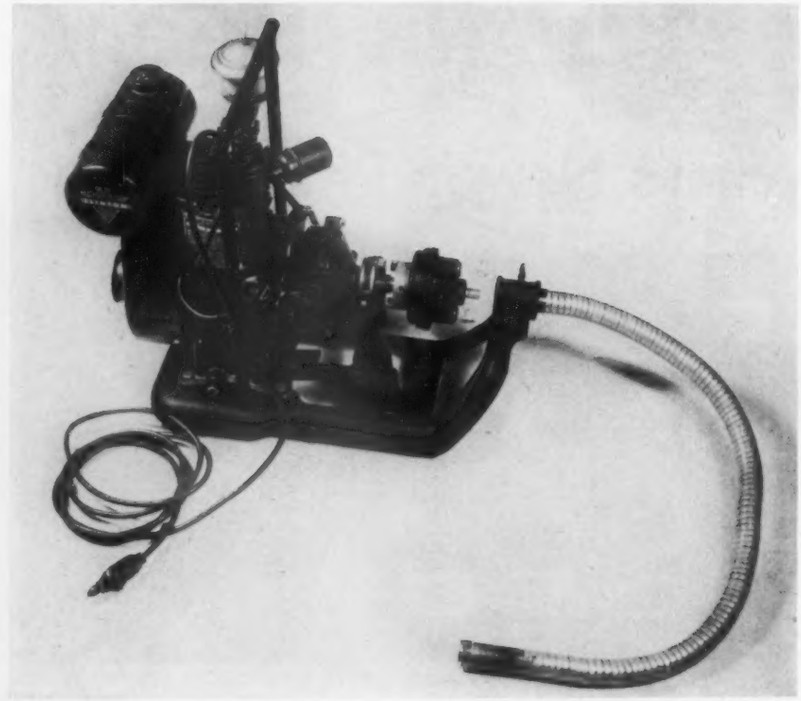
A hermetically sealed telegraph power supply, the Bogue power capsule, has been developed by Bogue Railway Equipment division, Bogue Electric Manufacturing Company, Paterson, N. J. The power capsule is intended for use as a source of direct current for the operation of telegraph printers, perforators and other instruments as well as serving as a local or line battery. This new device consists of a full-wave selenium rectifier, line isolation transformer and metallized paper filter capacitors hermetically sealed in a steel protective case. This power capsule furnishes 120 volts d.c. at 150 m.a., and operates from a 105 to 125 volt, 60 to 400 cycle, single-phase, a.c. line. Input and output connections, as well as voltage adjusting transformer taps, are brought out to a nine-pin moisture-proof ceramic-insulated terminal header at the bottom of the power capsule. Four power capsules may be mounted in a row on a single relay rack panel.

Panels cut for mounting four power capsules are available with an on-off toggle switch, line fuse holder, output fuse holder and a pilot light for each power capsule. The neon pilot lamp indicates voltage at the output terminals of the power capsule or optionally may be wired to indicate input voltage if desired. The fuse holders are of the front panel retractable type, permitting replacement of fuses from the front of the panel without danger of shock.

The power capsule is designed for continuous operation in ambient temperatures ranging from —40 to +50° C. at normal rated load •



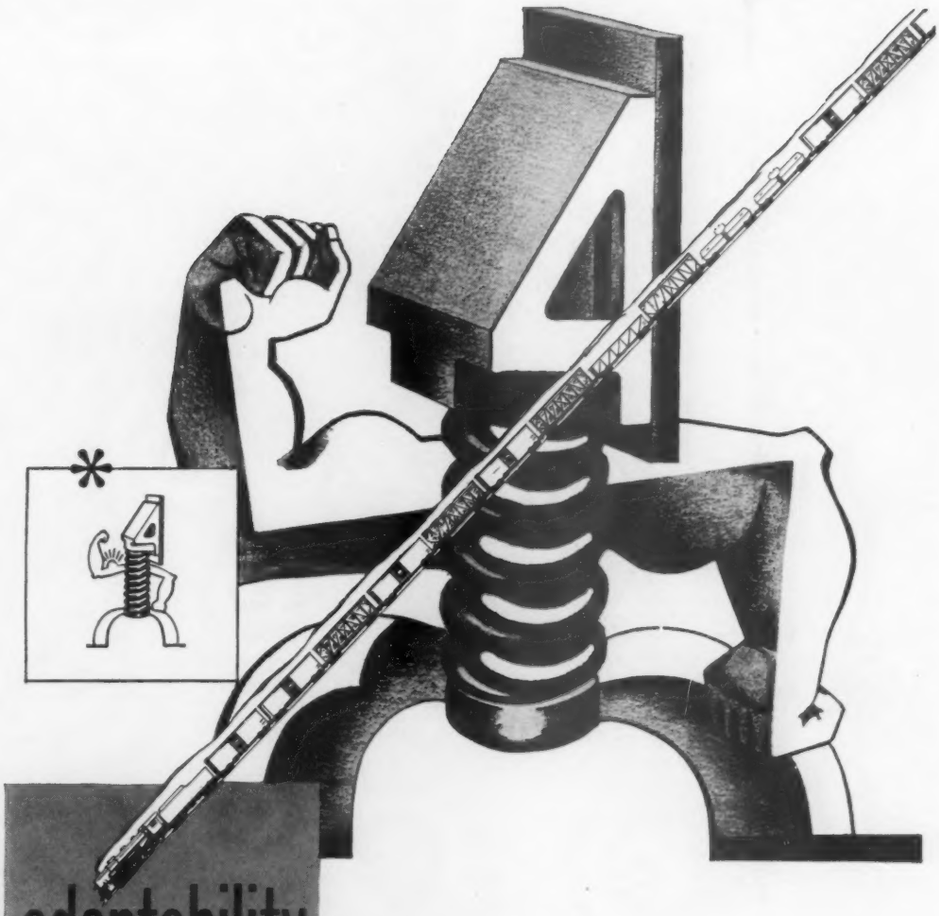
A direct current source.



Pipe Cleaner

The Ohio Tool & Engineering Co., Springfield, Ohio, has marketed a gasoline-engine powered electric eel for cleaning roots, stones, and debris from sewer, waste line and field tile installations where electric power is not available. Weighing 66 lb., the unit is designed to clean pipe 1¼ in. in diameter and larger, and has sufficient power to handle 300 ft. of cable. Its 1½-hp. gasoline engine is back-geared 6 to 1, has instantaneous kick-out, and an adjustable friction clutch between the engine and the cleaning cables. It also features a flexible connection for joining cables, which is said to eliminate breakage at the ends of the fittings.

Cleaning cable is available in both heavy-duty and regular types. The heavy-duty type cable consists of two cables—a stationary outer cable within which rotates an inner cable. This design, the manufacturer states, eliminates the possibility of injury to the operator in case of breakage, steps up efficiency, and makes it impossible to lose the cable in the line•



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light and heavy weight

they're both light and heavyweight champions

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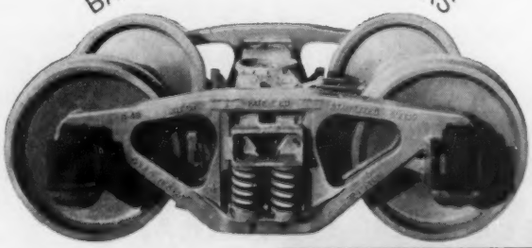
Yes, fewer heavy shocks are carried to the car body and lading with Barber Stabilized Trucks than by any other system of spring control. This has been proven in actual service on more than 300,000 freight cars.

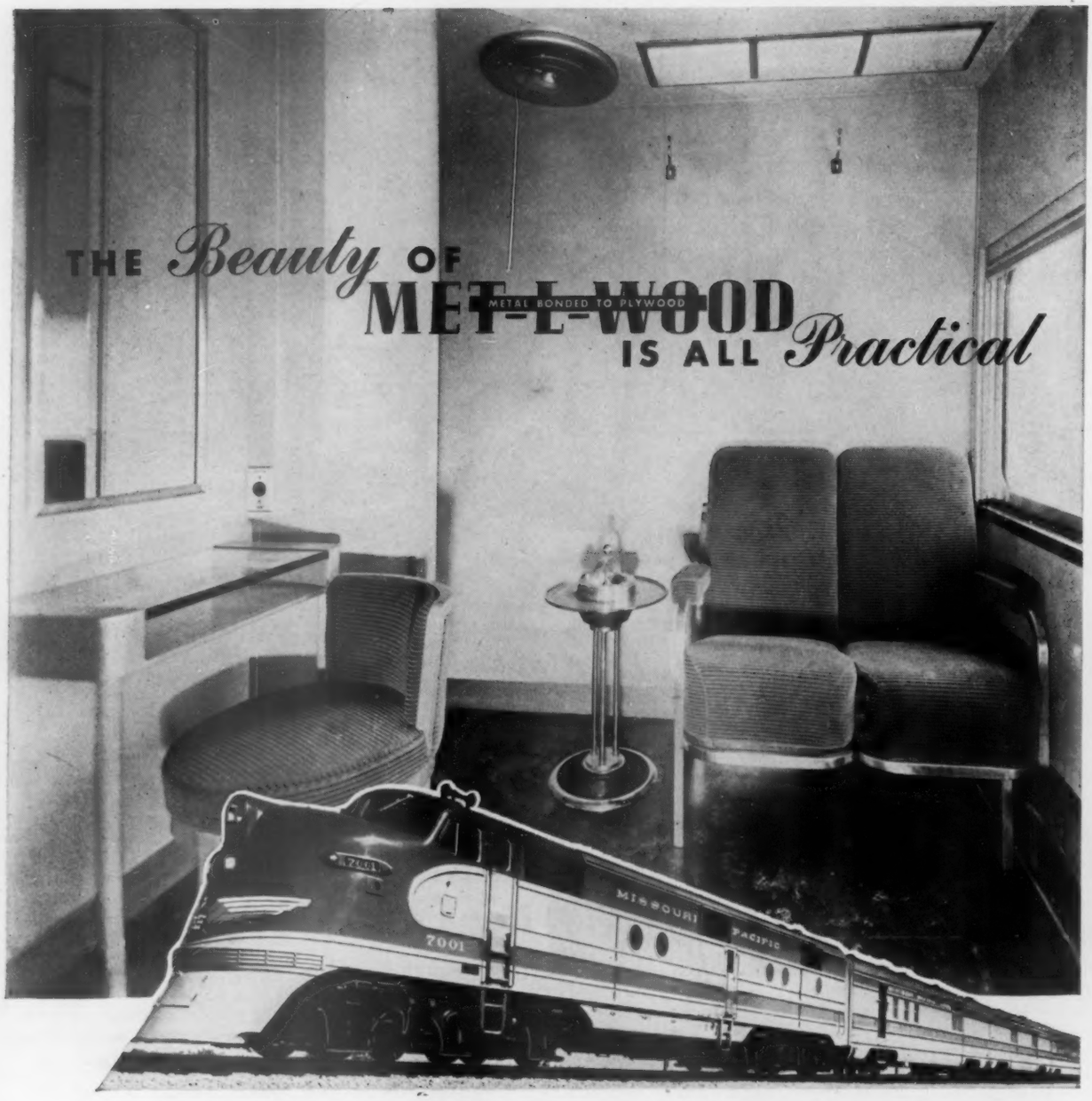
BARBER STABILIZED TRUCKS



* *Barber Side Springs carry part of the load, increasing capacity.*

6156

STANDARD CAR TRUCK COMPANY
332 SOUTH MICHIGAN AVE. CHICAGO, ILL.



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- **STRENGTH . . . 3/8" Met-L-Wood panel as stiff as 1/4" steel plate!**
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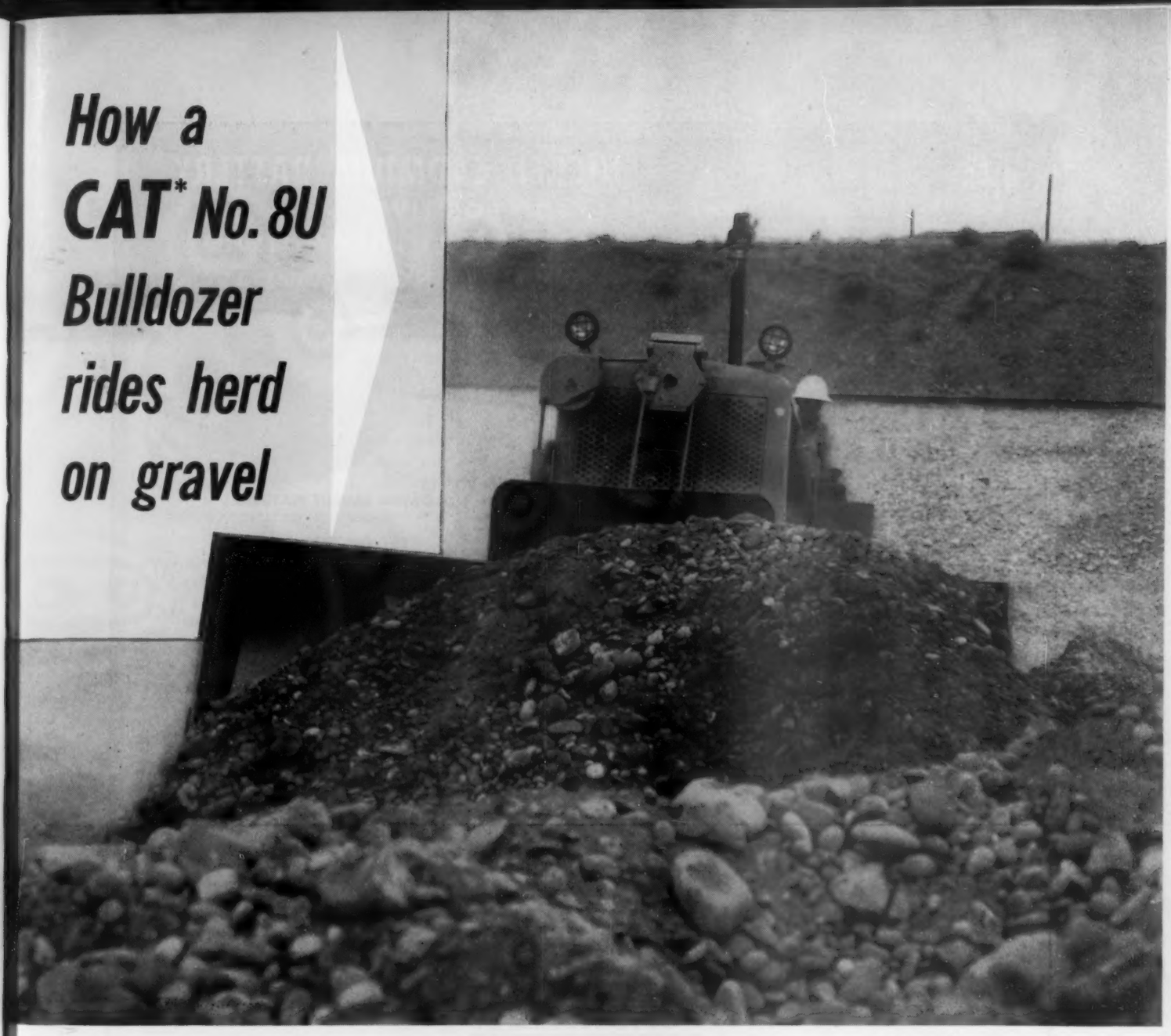
Whether your plans are for reconditioning old cars or building complete new trains, investigate the full possibilities of this versatile structural material in terms of design, efficiency, economy and beauty.

MET-L-WOOD CORPORATION

6755 West 65th Street, Chicago 38, Illinois

How a CAT* No. 8U Bulldozer rides herd on gravel



Here's a 'dozer scientifically designed for handling heaping yardage – and keeping it rolling with a minimum of spillage. The U-shaped blade rounds up material and really rides herd on it.

You can see what it's working in on this operation. It's feeding coarse gravel to a crushing plant, which produces 1½" material for railroad ballast. Power and stamina are needed to stay in there pitching day after day, and this rugged yellow 'dozer qualifies on both counts.

The D8 delivers 130 HP at the drawbar, with the capacity of the 8U blade matched to this power for top performance. Tracks and roller frames are built to last. Diagonal braces keep the tracks in line, yet leave them free to oscillate. The blade is of special high tensile steel for long, hard wear. And it responds readily and steadily, even in rough going, to precision cable control.

All these and many other advantages mean money-saving production along the right of way or in the yard, where there are always jobs to keep a 'dozer busy. Removing snow, clearing culverts, widening drainage facilities, building up fills, on switch and spur roadbed construction – name almost any heavy-duty chore, the 'dozer is a tool for it.

No other manufacturer offers so many different models of 'dozers as Caterpillar. This complete line is backed by prompt service from your Caterpillar Dealer. He'll be glad to show you what one of these husky units can do for you. Pick your toughest job and call him today!

Caterpillar Tractor Co., Peoria, Illinois.

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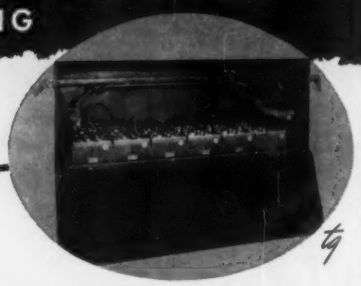
NICKEL CADMIUM BATTERY
FOR POSITIVE DIESEL LOCOMOTIVE STARTING



In daily use by New York Central for the toughest starting job—switching service.

Because of their rugged mechanical and electrical characteristics, NIFE batteries maintain high starting power throughout their entire long lives. Many NIFE diesel starting batteries have been in continuous successful operation for 15 to 20 years.

"LONGER LIFE WITH NIFE"

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NIFE DIESEL STARTER BATTERIES PROVIDE YOU WITH THE FOLLOWING SALIENT FEATURES:

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NIFE BATTERIES ALSO USED FOR:

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1824 N. Milwaukee Ave.
Chicago 47, Illinois

126TH ANNUAL REPORT
of
THE BALTIMORE AND OHIO RAILROAD CO.

Highlights of the year 1952:

Net income of $27,308,828 was substantially larger than net income for 1951.

For the first time since 1931, a dividend was paid on the common stock, at the rate of 75 cents per share. For the third consecutive year, a full dividend of $4.00 per share was paid on the preferred stock.

Railway operating revenues for the year dropped by 1.91%, but increased efficiency brought operating expenses down by 4.04%, compared with 1951.

Thus, 6.17 cents out of each dollar of revenue were carried down to net income, compared with 4.24 cents in 1951 and with only 1.93 cents in 1949.

Tax accruals of 7.87 cents out of each dollar of revenue, for 1952 exceeded net income, as has been the case for some years.

The average number of employees for the year was 53,732, and the total payroll cost was $240,693,550, an average per employee of $4,480.

$38,227,183 was spent during the year for improvements and new equipment

STATISTICAL SURVEY

Income:	Year 1952	Comparison With 1951 Increase (+) Decrease (−)
From transportation of freight, passengers, mail, express ...	$424,871,423	−$ 7,664,136
From other sources—interest, dividends, rents, etc.	27,280,773	− 219,544
Total Income	$452,152,196	−$ 7,883,680
Expenditures:		
Payrolls, materials, fuel, services and taxes	$386,361,424	−$15,635,974
Interest, rents and miscellaneous services	38,481,944	− 404,826
Total Expenditures	$424,843,368	−$16,040,800
Net Income:		
For improvements, sinking funds and other purposes	$ 27,308,828	+$ 8,157,120

R. B. WHITE, *President*

Benchmarks and Yardsticks

TO LEAD or influence people, it is helpful to know—either by instinct or by information—what they really want. What they think they want, or say they want, isn't always what they're really after. For instance, a union may demand higher wages or easier working conditions for its members when, as a matter of fact, some other adjustment would make the members much happier than those the union is demanding.

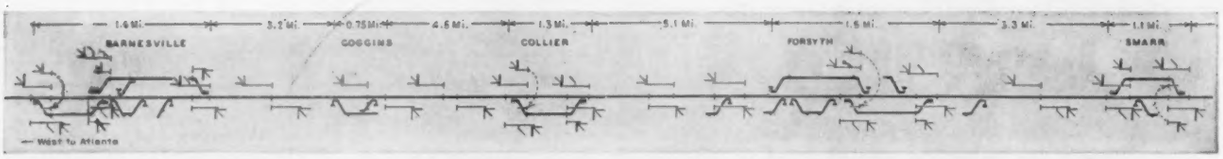
One aspect of successful management is that it provides people—employees as well as customers—with all the things possible that they want which the company can provide without excessive cost—such things, for instance, as consideration, courtesy and reliability. Many a business has succeeded where its competitors have failed—not because of lower prices or a better product, but simply because that one business made a point of giving each employee and customer a bonus in the form of inexpensive courtesy, consideration and dependability while its competitors did not.

People like to have surroundings they can depend upon. It usually takes a pretty high premium to attract men to jobs where arbitrary firing is common or the boss is capricious in his demands. An expanding business has an easier problem of customer relations and employee relations than one whose volume is diminishing. (This, incidentally, is an additional reason why it's so important for the railroads to solve the problem of traffic diversion as quickly as possible, so they can once more reliably count upon expanding proportionately with the growth of the country.)

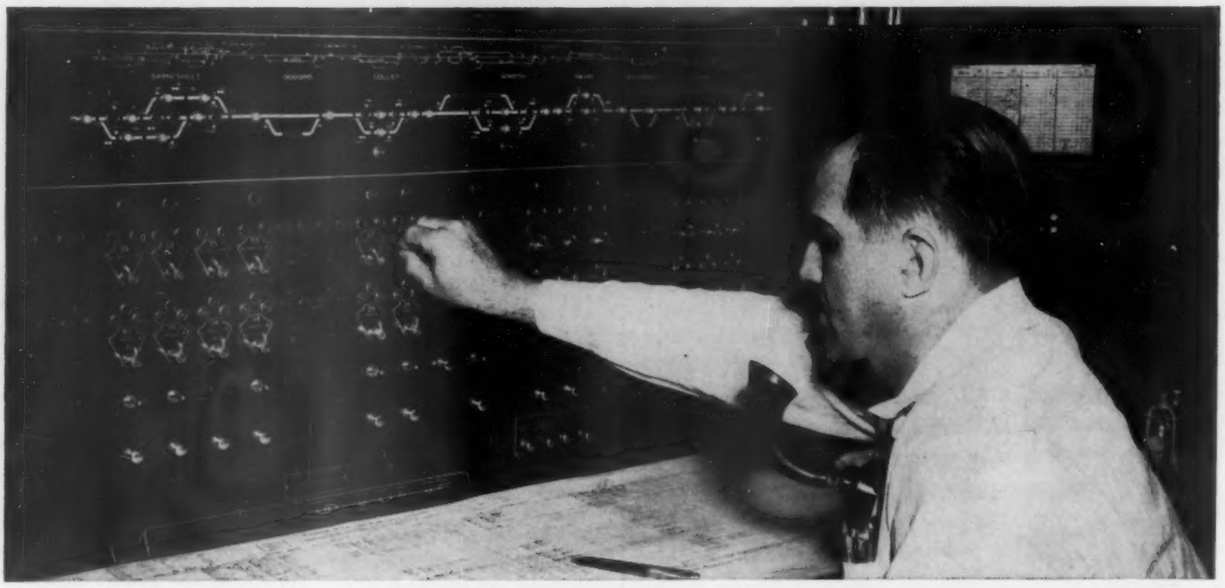
People like to "feel at home" in their work—and, also, where they live, although they're not always consciously aware of this desire. Back in 1943 a Jewish-French young woman named Simone Weil, living in exile in England, wrote a book called the "Need for Roots," which was not published in English until last year. With great insight this young woman, no longer living, pointed out that many of the troubles of her unhappy country could be traced to "uprootedness"—not primarily insecurity regarding physical necessities, but a loss of the "feeling of belonging"; too much nation and not enough local community.

Most Europeans think of Americans as being utterly without roots—restless wanderers, and predatory as nomads tend to be. They haven't noticed the colossal growth of popular interest in American history, local history, and even company history. Anyhow, "need for roots" is an instinctive yen which any man aspiring to leadership should recognize and requite to the best of his ability, in himself and in those whom he's responsible for leading.

J. G. L.



CENTRAL of GEORGIA's expanding C.T.C. system powered through OKONITE-OKOPRENE cables



42 miles of single track are controlled from Terminal Station in Macon, Georgia. Okonite-Okoprene insulated wires and cables are in use throughout.

CENTRAL OF GEORGIA has completed 42 of a proposed 102 miles of modern C.T.C. over single track line between Macon and Atlanta. As so many Class I railroads are doing, Central of Georgia specified Okonite-Okoprene cable for line drop wires, tower and case wiring, and signal wiring.

Fewer sidings, with a consequent reduction in maintenance, were one reason for Central's adoption of a C.T.C. system. And greater circuit security with practically no maintenance is assured Central of Georgia with Okonite-Okoprene wires and cables.

Centralized control of train movements requires absolute dependability throughout the whole system. Okonite-Okoprene cables are so frequently specified because they have a degree of dependability and long service life unequalled by other cables. The Okonite insulation and Okoprene sheath provide an extremely stable dielectric and a tough, oil-, heat-, and moisture-resisting covering—a safe combination that railroad men have placed their confidence in for many years. The Okonite Company, Passaic, N. J.

The best cable is your best policy

OKONITE SINCE 1878 *insulated wires and cables*

1353

Where to Begin In Labor Relations

Labor relations in all organized industries are thoroughly unsound and unstable, but the malady is more evident and more painful on the railroads than almost anywhere else. The disease is the chronic demand of the unions—and acquiescence by managements under political pressure—that wages be periodically increased, whatever the pretext. Some of the country's biggest industries, notably automobiles and steel, have been operating virtually at capacity for years. They have not had many worries about sales volume at rising prices, and hence have lacked compelling economic incentives to remain adamant against increasing wage costs.

In such booming industries the wage increase "pattern" is established, and unions in industries where conditions are wholly different make equivalent demands. If managements resist, the disputes wind up in the hands of some "fact finding" group which is not politically invulnerable and which invariably concedes to the unions most of the things they ask for. The process wholly ignores the economic facts of life—neglect of which is always punished, although the day of reckoning may be postponed. The longer the postponement, the more the misbehavior and the worse the punishment. It is this kind of imbecility that the Communists expect will eventually destroy their capitalistic enemies—and who can be too sure they're wrong?

The "Illusion" of "Productivity"

The popular idea that employees' "productivity" increases with increased mechanization, and that employers can, therefore, "afford" to pay increased wages, is a plausible illusion. It might have a tiny spark of validity to it, if the increased wages went only to those whose hourly production actually rose. But wage increases don't stop with such employees—the same increases go to those whose unit output is unchanged or even declines. You can get a better automobile for $2,000 today than you could have purchased for the same money in 1914, despite the increased wages of mechanics. But a haircut or a good meal in a restaurant or a coat of paint on your house will cost you four or five times as much today as in 1914, though the services performed are substantially identical.

More pay for the same or less output means just one thing—price inflation. On the railroads there are more cars per freight train (hence more car-miles per employee) than there used to be, but there is no similar increase in the number of cars in a "cut" handled by a switch engine. The "productivity," so-called, of yard employees hasn't gone up—but are yard employees, for that reason, content to see higher wages for road crews while their own remain stationary? Has the "productivity" of dining car waiters, and passenger-train employees generally, gone up?

Industries Aren't All Alike

Another thing—there's a vast difference between industries in the percentage of their revenue paid out to labor—and hence in the effect on these industries of a wage increase. On the railroads this ratio is 50 per cent or more, while it's only about one-third in manufacturing and much less than that in the utilities. So the same percentage wage increase is much more costly to the railroads than to other industries.

Still another consideration—practically all the so-called "increased productivity" comes from the investment of additional capital for new and improved machines. If all the gains in earnings made possible by the improved efficiency of new machines is to be syphoned off in higher wages to labor, where's the money to come from to pay the interest on the money with which these new machines were purchased?

The fact of the matter is that there shouldn't be any wage increases at all because of "increased productivity" which is caused solely by better equipment and not by greater effort or skill on labor's part. Instead, this "increased productivity" should be passed along in lower prices to consumers. In this way everybody (including employees as consumers) would benefit from increased mechanization and *price inflation would stop.*

The labor relations set-up for the railroads is a tangle of institutionalized confusion. Nobody seems to have any constructive solution to offer which appears likely to be politically appealing. The situation the railroads are in is the heritage of twenty years of shoddy political intervention by

the federal government in railroad labor relations, confounded by a general lack of understanding on the part of the employees themselves as to where their true long-run interests lie.

On most railroads, the officers charged with responsibility for personnel are given a mandate which goes little farther than that of negotiating with the unions. Considering the limitations under which they operate, these officers have done a creditable job. But establishing wholesome relations with employees is a far larger job than that of negotiating with the unions. It involves careful selection of good people in the first place, providing these people with competent and sympathetic supervision, and providing them with ample educational opportunities—first in the performance of their own jobs and, thereafter, in the economics of the railway business.

A few railroads have established personnel policies as comprehensive as this. As long as the pattern of labor relations in industry, including the railroads, is going to be pretty much what the employees want it to be, it is difficult to see how order is ever going to come out of the chaos until the employees themselves are made acquainted with the economic facts of life. They are not likely to take instruction in these facts except from superiors who have won their complete confidence. It is a hard road to travel, and a long one, to establish this degree of confidence, but a beginning must be made. Otherwise the demise of capitalism, which the Communists so confidently expect, will be inevitable. Confronted endlessly with confiscatory taxes and inflationary wages, capitalism will necessarily wither away, because private capital itself will disappear.

Repeal of Fare Tax Again to the Fore

Travel organizations, carriers and other interested parties are again shaping up a concerted drive for repeal of the 15 per cent tax on amounts paid for the transportation of passengers. Repeal bills have been introduced in the new Congress and supporting presentations are going in to the House Ways and Means Committee, its individual members, and senators and representatives generally.

The National Association of Travel Organizations and some of its affiliates have recently made such presentations. The Association of American Railroads has long been on record in favor of repeal as have other carrier groups.

The most recent activity of the A.A.R. and other similar organizations, such as the National Association of Motor Bus Operators and the Air Transport Association, has been that of their representatives who are members of a subcommittee or panel of the Transportation Council of the Department of Commerce. This panel, headed by John Lawrence, managing director of American Trucking Associations, is considering the tax on amounts paid for freight service as well as the passenger levy. The council received a report from the panel at its meeting on March 17 and 18.

Also in the repeal drive is the National Association of Railroad and Utilities Commissioners. It is following through on the repeal resolution adopted by its members at their 1952 annual meeting. That resolution also calls for elimination of the freight tax and the tax on amounts paid for communication services.

As expected, the repeal drive, like those of the past, is up against the "revenue considerations" argument. The passenger tax yielded $275 million in the fiscal year ended last June 30. And President Eisenhower is on record in favor of deferring tax-relief legislation to give budget-balancing first priority. Also, there is the disposition in Congress to set tax-relief sights on the income tax.

Despite all of this, however, the arguments for repeal, or substantial reduction, of the passenger tax remain sound.

It is still true that one consideration which determined the present rate of 15 per cent was the desire to discourge wartime travel. It is still true that 15 per cent is a luxury-tax rate on a service which is not a luxury. It is still true that the tax is discriminatory in that it applies only to for-hire travel and thus tends to divert travelers to the private automobile.

And it is still true that Congress' own transport regulatory policies do not permit "revenue considerations" to justify maintenance by the regulated carriers of unreasonably high rates or discriminatory rates.

"The world judges the railways by their passenger services. If this is the window through which we are viewed, we must wash it and shine it, or else cover it with a dark shade. I maintain that passenger service must be excellent, or it should be given up!"—*From an address to the New York Society of Security Analysts by John M. Budd, president of the Great Northern.*

COMMUNICATION CONSOLE on each checker's desk enables him to keep in touch with gangs working in cars at any of 140 locations in the transfer.

PORTABLE TALK-BACK SPEAKER, hung on wall in car, used by member of a gang to talk with any one of the checkers in the office.

Talk-Backs in Freight Transfer

Lehigh Valley system includes two-way loudspeaker communication between checkers in office and gangs in cars, thus speeding operations and minimizing errors in the handling of l.c.l.

In a large l.c.l. freight transfer at Manchester, N.Y., the Lehigh Valley has installed a loudspeaker system for communication between gangs in cars and checkers who are now located in the office. Manchester is 88 miles east of Buffalo on the road's 448-mile main route between Buffalo and New York. The transfer at Manchester has four parallel island platforms 17½ ft. wide and 1,013 ft. long, which are spaced 23 ft. apart to allow for two tracks. Thus, all the cars spotted at these platforms can be worked directly from a platform, without going through any other car. At the middle, the four platforms are connected by a 39½-ft. transverse platform.

Track length is available to spot 134 cars alongside the platforms. Also, along the north side of the west end of the north platform, space is available to spot highway trucks or trailers. The platforms are constructed of concrete, and are covered with roofs on structural steel frames which are supported by steel posts at the edges of the platforms.

Each night the switching crew pulls and sets up the transfer for the following day. An average of 60 cars are received and handled each day, and approximately the same number are forwarded each night. Twelve highway trailers are used to handle l.c.l. freight to and from local stations on line in New York state, except Rochester and stations at the frontier (Buffalo-Niagara Falls), where overnight cars are scheduled.

The layout or outbound cars are given a "spot" number, designating each as the car into which are to be loaded all the packages of freight to go to a particular destination, such as Bethlehem, Pa., Newark, N.J., Buffalo, Cleveland, or Chicago. The l.c.l. freight moving through this transfer averages about 8,600 tons monthly.

How the Freight Is Transferred

The work of unloading the inbound cars, and delivering the packages to the proper outbound cars, is done by men using four-wheeled self-powered electric trucks. Each gang consists of three men, and such a gang is ordinarily assigned to unload each car. The force usually includes about 11 such gangs. In addition, five men stow the packages in place in the cars being loaded. Also, two men operate two fork-lift trucks which are used to pick up and move heavy packages, boxes or crates. Two foremen supervise these operations. Work at this transfer starts at 7 a.m. and must be completed by 3:30 p.m., at which time the loaded cars are pulled.

Previously, a checker was assigned to each of the gangs. When starting work each morning, each checker went to the office to get the bills for packages in the first car which his gang was to work, and also to receive current information on "spot" numbers for cars in which packages were to be loaded for 60 different destinations.

Having started work in a car, when a man brought out a package and called off the name and address, the

PAGING SPEAKERS (arrow) mounted on overhead beams at 20 locations in the freighthouse are used whenever it is desirable to make general calls.

checker then checked the bill and called the "spot" number. Then the gang man marked this number on the package with chalk. The packages were then loaded onto trucks and delivered to the proper outbound cars. When the car being unloaded was empty, the checker went to the office to leave the bills, and to get the bills for another car to be worked by his gang.

With the new communication system, the checkers now work in the office, which is on the second floor of the building connected to the north platform.

Each checker has, on his desk, a communications control console. This console has a 5-in. talk-back loudspeaker, and telephone-type keys, by which the checker can connect his "set" to any one of five incoming circuits, set up to work with portable talk-back loudspeakers mounted temporarily in cars then being worked by separate gangs.

When reporting to the office in the morning, each gang is assigned to work a certain car, and a checker is given the bills for the cars assigned to three such gangs. While at the office, one member of each gang is given a portable talk-back speaker which he takes with him. He hangs this loudspeaker on a nail, driven temporarily in the wall near the door of the car; then he unwinds enough of the attached cord to plug it into the nearest of 140 talk-back receptacles (134 cars—6 trucks) located on the steel posts along the edges of the platforms. By speaking into the talk-back speaker, his call is reproduced in a "common" loudspeaker in the office, as for example, "this is Murphy in LV car 61748 at outlet 98." The checker who has the bills for that car goes to the switchboard in that office, where he places the cord of one of the five jacks connected to his console into the jack numbered 98. In a similar manner, other gangs establish connections with their checkers, each checker working with three gangs.

When the checker inserts the plug in Jack 98, for example, the "common" loudspeaker is cut out. Thus, this "common" loudspeaker is used only as a means by which a man at a portable talk-back speaker in a car can call the checker's office. Each console has a capacity to handle five incoming connections, thus giving flexibility in changing from one car to another. Five consoles and connections were installed in this checkers' room, although only four are normally required to work with a total of 11 to 12 or more gangs. The extra console provides flexibility.

Portable Talk-Back in Car

A second cord from each portable talk-back loudspeaker in a car is connected to a pendant-type push-button. When unloading a car, the usual practice is to arrange several packages so that names and addresses can be read. Then one of the men presses the pendant push-button. This causes an indication lamp to be lighted above the corresponding key on the office console of the checker to which this incoming circuit is connected. If the checker is not busy, he throws that key to the lower position, then steps on a foot switch and speaks into his talk-back to answer the man in the car, and to tell him to "go ahead."

When the name and address on a package is read off, it is picked up by the portable talk-back in the car and reproduced in the talk-back in the checker's console. He replies by giving the "spot" number, which the man in the car then marks with chalk on the package. The checker meanwhile checks the item as listed on the bill. When the gang in the car have thus checked off enough packages for several truck loads, they "sign off" with their checker for the time required to put these packages on trucks and deliver them to the outgoing cars, according to the "spot" numbers. In the meantime, the checker can work with one of the other gangs.

When a gang, working in communication with a checker, has completed unloading a car, the checker then assigns that gang to another car, and tells them where it is located. When the gang arrives at that car, they hook up their portable talk-back speaker and report to their checker, and the routine is repeated.

At the left on each checker's console is a black key. By pushing this key, the checker, by speaking into his talk-back loudspeaker, can issue a call that is reproduced by all the 20 paging loudspeakers on the platforms. For example, he can call a foreman, or he can direct one of the two fork-lift trucks to go to a certain car to lift something too heavy to load by hand.

The work being done by the gangs in the cars and on the platforms is under the direct supervision of two foremen who go here and there as circumstances require. Each foreman carries a pocket-type telephone handset, which he can plug into any of the 140 communications outlets to call the checker's office.

The operations of this entire l.c.l. freighthouse are

under the supervision of Edward B. Hogan, agent Manchester Transfer, who has an office on the same floor as the checkers but in the opposite end of the building. In the agent's office is a communication console similar to that used by the checkers, but so connected that he can, by throwing the appropriate key, connect his talk-back speaker to listen in on any of the circuits then in use between any of the five checker consoles and corresponding cars with which they are communicating. By pressing a foot switch and speaking into his talk-back, the agent can talk to the checker. Thus, by this monitor set, the agent can keep himself informed concerning the overall progress of work being done.

If the agent wants to call a foreman, or if he needs to issue an emergency general order to the entire force of men on the platforms, such as a call to fight a fire, he can do so by pushing the button at the left on his console and then speaking into his talk-back speaker; his message is then reproduced in all of the 20 paging loudspeakers located throughout the length of the platforms.

The agent's chief clerk works at a desk just outside the entrance to the agent's office. A special key is connected in the circuit for the telephone on this chief clerk's desk so that by throwing this key, he connects his telephone handset so that he can issue a call over the 20 paging loudspeakers.

A room, 24 ft. wide and 18 ft. long, is used by the four checkers and the clerk who handles incoming and outgoing bills, and assigns bills to checkers. As part of the recent improvement program, the ceiling and walls of this room were covered with Celotex acoustical panels to minimize reflection of sound.

The consoles, amplifiers, switchboard, and portable talk-back speakers used in the cars were made by the Electronic Communication Equipment Company, Chicago, which furnished all the equipment for the entire communications installation under one contract.

Faster Operations in the Transfer

The use of this new communications system has proved advantageous in many ways. The checkers now work in the office where they can handle their papers better than out in the cars. The freight is now checked better, so that there are fewer instances in which a package is loaded in the wrong car. Also there are fewer "overs" and "shorts" than before. With the new system, when the car for some destination is nearly filled, a report to that effect is sent in promptly via loudspeaker to the office. Then, immediately, a broadcast message goes out over the paging speakers, for example, to change spot "98" to "87." Every man in the cars and on the platforms hears this, and is governed accordingly. Men with loaded trucks on the way to spot "98" then deliver their packages to "87" instead. This saves confusion and backhauling which was unavoidable previously under such circumstances.

Also, with the new loudspeakers, the fork-lift trucks can be called quickly and sent promptly where needed, thereby avoiding heavy lifting, and obviating much delay previously occasioned. With the new communications system, the foremen keep in touch with the progress of all the work, and they are able to detect possible causes for delays, and clear up trouble before congestion occurs.

AGENT CAN MONITOR CONVERSATIONS between checkers and gangs, as well as issue instructions, by his communication console.

In general, in other words, the Lehigh Valley has improved its service to shippers by installing this communications system.

The project was planned and installed by Lehigh Valley forces, under the general jurisdiction of J. F. Yerger, chief engineer, signals and communications, and under the direct supervision of J. A. Niedick, assistant chief engineer, signals and communications. The circuits and equipment on the platforms were installed under the direction of Howard Nugent, line foreman; and the consoles, switchboad, amplifiers and other equipment in the office were installed by J. J. Rubery, telephone maintainer.

D. R. G. W. R.R.—Form 955

DAILY RECORI

Direction E or W	TRAIN REFERENCE	District Code	ENGINE NUMBER	MILEAGE										TIME				
				Princ.	Light	Helper	Way	Yd Swt Frt	Yd Swt Pass	Work	Rd Hse	Int. on Trml. Swg.	Final Trml. Swg.	Time Departed	Time Arrived	Elapsed Time Enroute	Time on D Fast	Time on D Dead
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
W	63 B	2001	5451-2-3-4	87			6							8 35A	2 30P	5'55"	7'20"	
✓	RBX	2001	5474-3-1	87			6							11 50A	5 55P	6'05"	7'50"	
✓	61 B	2001	5668-3-2-1	87										2 50P	8 00P	5'08"	6'05"	
✓	Ltr. way	2001	3612		21									8 50P	10 15P			
✓	✓	2001	3609		21									8 50P	10 15P			
✓	✓	2001	3619		21									8 05P	9 25P			
✓	✓	2001	3602		21									8 05P	9 25P			
✓	✓	2001	3612		21									11 53A	1 15P			
✓	✓	2001	3609		21									11 53A	1 15P			

ABUNDANCE OF EXPENSE CONTROL DATA shown here under column headings as reproduced from "Daily Record of Train Performance." Sheet gives figures for every freight train operated during a 24-hr. period. In making out the report trains are grouped by districts, and by direction within each district. Passenger trains are shown on

How D&RGW Uses Cost Controls

Monthly revision of budget estimates and weekly appraisal of actual results tie in with department controls to guide officers at source of expense

By R. J. HERRING

Comptroller
Denver & Rio Grande Western

In April 1947, the Denver & Rio Grande Western emerged from 11 years of trusteeship in the best physical and financial condition of its history. Like all railroads, however, it was confonted with the fast-changing economic conditions that immediately followed the termination of World War II. Wage rates and material prices increased much more rapidly than, and far in advance of, increases granted the railroads in freight rates. Had it not been for the substantial growth in volume of revenues, and, more particularly, the great economies effected, primarily through dieselization, the rate increases would mostly have fallen short of producing net earnings.

To meet this challenge of producing adequate net earnings under such circumstances, the Rio Grande's management knew it needed to revamp its budgetary and cost control methods so that the men charged with spending money would have at their disposal the most up-to-date information possible. The receipt of periodical reports from the accounting department for purposes of review and appraisal of results was not satisfactory; the reports were not received in time to be of the utmost value. These reports have therefore been supplemented, and in some instances supplanted, by current interim information from which operating irregularities can be detected and immediate corrective action taken.

The first step in the budgetary control method adopted by the D&RGW is the preparation of the annual budget. This, in effect, consists of three parts: (1) a financial budget, (2) a capital improvement budget, and (3) an operating income budget. The three budgets are prepared simultaneously and are submitted to management for approval prior to the beginning of the year to which they are applicable.

The *FINANCIAL BUDGET* shows the available cash at the beginning of the year, and the anticipated cash receipts and disbursements for the ensuing year. Management is thereby furnished with an indication of the financial position of the company for the coming year.

The *CAPITAL IMPROVEMENT BUDGET*, which provides management with a guide in planning the improvement work during the year, is prepared after completion of a large amount of preliminary work. Each department submits a list of proposed items of improvement, together with a breakdown of expenses incidental thereto. These proposed items are then compiled into a preliminary budget which is submitted to the general manager. A meeting of all supervisory personnel is then convened to discuss the proposed improvements, so as to determine the necessity and order of importance of each item, giving consideration to the amount of cash available. When the final budget is prepared it is submitted by the executive vice-president to the president, who, in turn, submits it to the board of directors for adoption.

The *OPERATING INCOME BUDGET* gives management the necessary data to keep controllable expenditures in line with anticipated operating revenues. Responsibility for the preparation thereof is vested in the auditor of budget and statistics, who reports directly to the

Location S-40

) OF TRAIN PERFORMANCE

Subdivision 3, for 24 hours ended 11:59 p.m., 12-2, 1951

		CARS					WAGES			Cost Per MGTM	
Other	Initial Terminal Delay	Loads	Empties	Adjusted Tons	% of Rating	Gross Ton Miles	Trainmen's Wages	Enginemen's Wages	Total Wages		REMARKS
(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
	35'	57	15	3463	98.9	269,490	38.46	36.02	74.48	27.6	
	75'	9	59	2576	98.1	171,786	39.78	34.80	74.58	43.4	
	22"	57	18	3795	77.4	303,369	38.46	35.22	73.68	24.2	

a separate form. Items 18-20 above apply only to extra or special passenger runs. To "wages" data (Columns 27-29) there are added, at the bottom of the columns, (1) deadheads and (2) arbitraries. Comparisons with same month of the previous year are made at the bottom of Columns 26-29.

comptroller. The basic figures used in the formulation of the budget are an estimate of revenues furnished by the traffic department for each of the 12 months of the ensuing year. Using these revenues as a guide, certain operating statistics—such as gross ton-miles, car-miles and train-miles—are estimated for each month as a measure to use in determining the amount of work to be performed and the expenses incident thereto.

Departmental Procedures

In arriving at annual expenditures for maintenance-of-way and structures, which vary to only a small extent with traffic handled, the engineering department is expected to formulate and follow a definite work program —there is to be no deviation because of fluctuations in revenues unless top management authorizes it.

The chief mechanical officer's staff, in preparing the anticipated expenditures for maintenance-of-equipment, must likewise promulgate a defined program covering expenses incident to repairs to equipment which must be made regardless of changes in the volume of traffic handled. In addition the staff must forecast expenses which tend to vary with traffic fluctuations.

The annual budget, together with an estimated income account and supporting papers, is submitted to the executive vice-president for review and approval before presentation is made to the president and board of directors. It is the former's duty to see that the road realizes the greatest possible net earnings from the expected revenues, giving consideration to the necessity of good maintenance and operating performance to provide the best possible service to the patrons of the railroad.

As stated by Executive Vice-President A. E. Perlman, "We do not always get the net earnings which we anticipate. It is like the item 'periodical savings' in the homemaker's budget. Conditions arise that are beyond control which sometimes alter the ultimate results; however, the fact remains that there has been set a definite goal, plus an up-to-date appraisal of the income and outgo, which greatly increases the likelihood of good results at the end of the year."

As the year progresses revisions of the budget are made *each month* to keep it realistic. These revised monthly estimates follow the same pattern as that of the annual budget, except that they are accompanied by departmental data showing a detailed breakdown of the work to be performed in that particular month, with a request for authority to make the necessary expenditures. The revised figures are transmitted to the president on or before the 27th of the preceding month. After these expenditures have been authorized by the president, **every supervisor from division superintendent to section foreman, and from chief mechanical officer to the roundhouse foreman, is on record as to the amount of expenses budgeted for his unit of responsibility. It is at this point where cost control becomes the important factor.**

With responsibility for costs in the hands of supervisors close to the source of expenses, control lies not only with the division superintendent, but with his train-

In 1931 the D&RGW abolished the system of division accounting in favor of centralized accounting. While this change effected economies, division personnel lost the media from which data were available to them for cost control, and, as a result, were no longer "cost-conscious." The management, therefore, has now instigated a research program designed *to place the responsibility of cost control in the hands of the supervisors close to the source of the expenditures* by furnishing them necessary up-to-date information. Considerable progress has been made in all departments—and particularly in connection with the transportation department, where the variable costs constitute a large part of total expenses.

Says A. E. Perlman, executive vice-president:
"We do not always get the net earnings which we anticipate. It is like the item 'periodical savings' in the homemaker's budget. Conditions arise that are beyond control which sometimes alter the ultimate results; however, the fact remains that there has been set a definite goal, plus an up-to-date appraisal of the income and outgo, which greatly increases the likelihood of good results at the end of the year."

masters, yardmasters, and other subordinate supervisors. Today on the D&RGW every trainmaster, chief dispatcher and other operating officer is furnished with a "Daily Record of Train Performance" over the appropriate districts (illustrated). Prepared in the division superintendent's office, this report provides a complete resumé of performance showing not only unit trainmen and enginemen wage costs per thousand gross ton-miles for each train operated and for each operating district as a whole, but also a comparison with the costs for the corresponding month of the previous year. Thus, at a glance, operating men can analyze the previous day's operations and take necessary corrective action.

This report not only eliminated four hitherto separate reports—and has since made possible further reductions in paper work—but also played an important part in the improvement shown in freight train performance in 1951, the year following its inception, as shown in the following comparisons with 1950:

- Freight train gross ton-miles up 16 per cent.
- Freight train-miles down .07 per cent.
- Train load up 17 per cent.
- Train speed up 0.6 per cent.
- Gross ton-miles per train-hour up 17 per cent.
- Wage and fuel cost per thousand gross ton-miles down 7.7 per cent.

The sample "Daily Record of Train Performance" reproduced here covers the 87-mile subdivision between Salida, Colo., and Minturn, which lies on both slopes of the Continental Divide cut by Tennessee Pass, on the "Royal Gorge Route" of the D&RGW. Freight trains are moved on almost a constant three per cent grade on the western slope and a 1.51 per cent ruling grade on the east.

In Stations and Yards

Current cost control data for other phases of transportation expenses—such as stations and yards—are likewise prepared on a daily basis. A report covering freighthouse and carload transfer costs, entitled "Daily Report of Tonnage Handled and Expense," includes indices of cost and performance, which show at a glance a comparative basis of: (1) per cent overtime to total wages; (2) cost per ton handled; (3) tons handled per man-hour; and (4) man-hours lost because of late setting of cars. "Comparable" costs shown are the present day costs adjusted to eliminate the effects of the higher current wage level. This report is prepared by station agents and forwarded to the division superintendent, the superintendent of transportation and the auditor of disbursements for the compilation of a monthly summarization.

Yard operations are controlled from data furnished in a more conventional "Daily Report of Yard Operations," prepared by each operating division office and listing all yards operated by regular switch crews. Among the more significant items thereon are: (1) hours of overtime; (2) cars handled per engine-hour; and (3) delays chargeable to the mechanical department. These data are on hand at division headquarters the day following the performance.

This report is now being reviewed by a research committee to test the possibility of designing a daily report from which the operating supervisors can also evaluate yard performance and expenses from the standpoint of time consumed and work done in industrial switching, an element of operation which is now obscured by the present method of obtaining the number of cars handled for this report by using a car count into and out of a given yard.

Other departments of the Rio Grande—such as engineering and mechanical—have similar *daily* performance data furnished them for control purposes. In addition to daily control data the mechanical department receives from the accounting department a periodical estimate of expenses for the current month beginning with the 15th of the month. This estimate covers the first 10 days and every 5 days thereafter. The data are furnished by primary accounts for each operating division. Receipt of these estimates places the mechanical department supervisors on the operating divisions in a good position to make timely adjustments wherever and whenever necessary to stay within their budget allowances.

Revenue Revisions

On the third day following each seven-day period of the month, the accounting department issues an estimate of revenues covering the period and month to date, with comparisons for the corresponding period a year ago. A comparison is made of the revenues with those which were forecast for budget purposes. If the revenues are found to be running under those estimated for the budget, an analysis is made of the traffic handled during the period and of other factors related thereto to determine the revenue trend for the balance of the month and its effect upon the net earnings of the company. A report is then made to the executive vice-president for managerial handling.

The Rio Grande management believes it has made good progress in formulating and placing into effect budget and cost control practices which give *current* information to the men who actually spend the money. Further improvements can be expected in the future.

There has been appointed a "budgetary control committee," headed by a special representative of the comptroller and comprised of members from the traffic, engineering, mechanical, and transportation departments. Important assignments of this committee are: (1) to do research work on budget and cost control procedures; and (2) to assist personnel in solving problems that may arise in conjunction with preparation of budget data and the administering of cost controls.

THE SOO LINE MANAGEMENT believes sales service is as important as good operating performance.

Backstopping Soo Line Sales Force

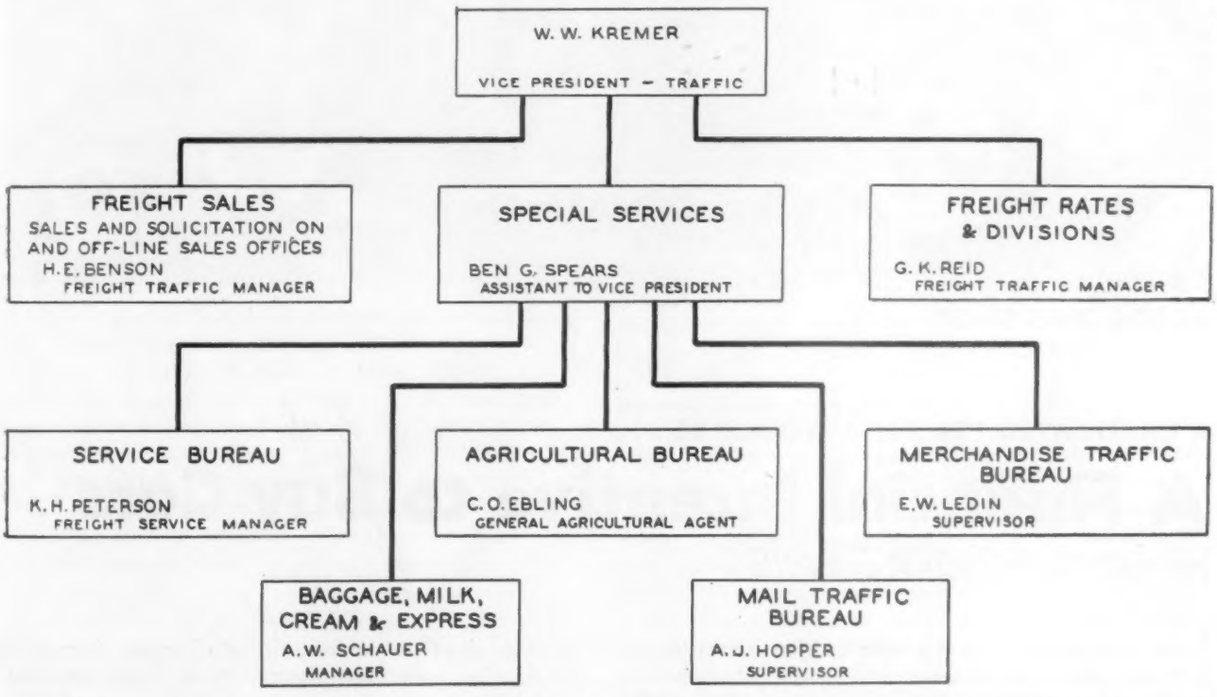
Improved and expanded sales efforts, together with improved sales service to shippers, are the goals of the Soo Line in the formation of a new "freight service bureau" within its traffic department. By assuming many of the routine office tasks formerly carried out by members of the sales forces, the new unit is enabling individual salesmen and traffic sales officers to devote more of their time and attention to direct sales efforts. The bureau is also making it possible for the traffic department to offer shippers more and better sales service than was formerly possible.

The new freight service bureau is organized to: (1) supply information; (2) handle routine diversions and reconsignments; (3) assist in dealing with customs problems; (4) handle requests for perishable protective services; (5) oversee problems of car supply; (6) perform all tracing activities; and (7) check train-schedule performance; and, recently, (8) issue rate quotations.

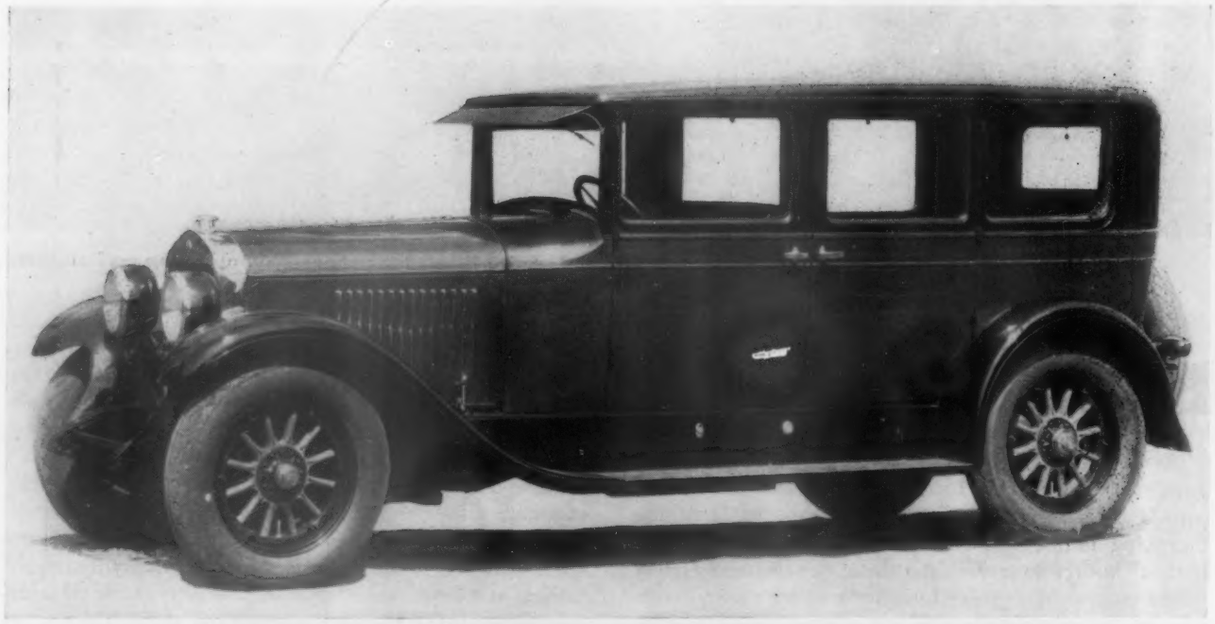
This arrangement centers all routine service and information functions of the traffic department in a single bureau which is fully manned at all hours and equipped to handle every request promptly and properly. Formerly, when many of these tasks were left to those also responsible for sales and solicitation, their absence on regular field trips frequently delayed the proper handling of routine matters, and made proper supervision of service functions particularly difficult.

Formation of the freight service bureau came as a part of a new plan of organization in the traffic department. The department is now arranged in four primary operating sections: (1) a sales force which devotes its entire efforts to selling; (2) a special service section which includes industrial development and merchandise service as well as the freight service bureau; (3) a rate bureau which handles all rate making matters (other than simple

(*Continued on page* 68)



THE NEW TRAFFIC DEPARTMENT organizational set-up, showing the relation of the service bureau to the other functions of the department.



SHOULD THE RENT BE THE SAME FOR THIS CAR . . .

AS FOR THIS ONE?

A GRADUATED PER DIEM WOULD BE . . .

A Financial Incentive to Buy Cars

HENRY K. NORTON* SAYS:

I ask leave to introduce a wholly fictitious character—fictitious, that is, in the sense that he does not represent any one person but is, rather, an attitude of mind which lurks in all of us—in some to only a minor degree, in others a lot more. Meet, then, Shine E. Pantz, president of the Eastern Pacific, a wholly fictitious railroad. Mr. Pantz is a man of decision, with a tendency toward

*Mr. Norton is trustee of the New York, Susquehanna & Western.

determination. He knows every tradition of the industry and every pat phrase which has been evolved to fend off innovation and critical examination of time-honored practices.

From time to time he has been forced to modify the resolute monotony of this policy by the actions of the presidents of the Eastern Pacific's two nearest competing lines. Pantz considers Jim and Joe fine fellows, but not altogether dependable. Every now and then they have allowed their subordinates to talk them into something new. Competitive action has, as a consequence, deflected Pantz into innovations which he found distasteful. Thus under the presidency of S. E. Pantz, the Eastern Pacific went into some innovations—after others had safely established the style—such things as air-conditioning, streamline trains, and diesel locomotives.

These innovations, however, were but slight dents in the line of adherence to precedents, which Pantz was determined to uphold at any cost—except his reputation as a "progressive." This morning, he awaits the arrival of his vice-preisdent, operations. That young man (age 52) is inclined to toy with newfangled notions—and Pantz always anticipates a conference with him with some apprehension.

Enter, Vice-president, Operations—

V.P.O.: Good morning, sir.

S.E.P.: Morning. What's on your mind today?

V.P.O.: Shortage of cars. We're breaking our necks to get enough cars to keep our shippers half-way satisfied.

S.E.P.: Connecting lines holding our cars again, I suppose?

V.P.O.: Not too many. We have about our normal number on line, but our cars are getting old. The number out for repair is high and 2,000 should be scrapped. To replace those and take care of our shippers, we should order 5,000 new boxes.

S.E.P.: At $6,000 apiece—and let the other roads work 'em for $2 a day! Not on your life.

V.P.O.: But what about our shippers, sir?

S.E.P.: Fix up the old cars and put 'em back in service. That'll take care of the shippers and we'll get as much per diem as we would on new cars.

V.P.O.: But that will still leave us 3,000 cars short.

S.E.P.: Well, O.K. Order 1,500 new boxes. Let the debit roads buy the rest.

V.P.O.: Yes, sir.

(Rises to go. As he reaches the door, he turns again to the president):

Sir, you remember the Autopart plant. They're complaining of the load limit on these old cars and their damage claims are climbing. They say they'll go to trucks if we don't give 'em better equipment. Do you think we might lease 100 of those special jobs for them?

S.E.P.: (*Body and voice both rising*): And pay all that rental? Not on your life.

V.P.O.: Yes, sir. (*Exit.*)

Imaginary, But—

This scene is imaginary, but something like it could happen as long as the Pantz frame of mind persists. It has always existed. It antedates the railroads and, if the Pantz attitude had had its way, there would have been no railroads to begin with. The current shortage of good freight cars is ascribable to the predominance of the Pantz philosophy, more than to any other one cause.

His reasoning has some validity for the individual railroad under the present per diem system. At its annual meetings, the Association of American Railroads solemnly resolves to order x-thousand more cars. The resolutions pass unanimously, but do all the railroads represented, at the same time, resolve with equal solemnity to order their share of the total order? Each year the association has to do its resolving all over again. And meantime its president, whose outstanding abilities are so badly needed in other directions, must devote a large part of his time to explaining the car shortage to shippers and their congressmen and to persuading recalcitrant railroad presidents to increase their orders by a thousand cars here, a hundred cars there, and a dozen cars elsewhere.

And why? Cars are a prime instrumentality by which the railroads earn their money. Why should a great industry not provide facilities to handle all the profitable traffic available? A cut in the *volume* of traffic means loss of revenue. A cut in the *quality* of traffic means loss of revenue. Both mean a loss in that marginal revenue which goes in greatest measure into profits.

One factor, certainly, which makes a major contribution to this anomalous situation is the per diem rate. Seventy-four years ago some V.P.O. who liked to monkey with newfangled ideas proposed a uniform per diem rate. It took 24 years to persuade enough of the Pantzes of his day to vote for its adoption and put it into effect.

That is now recognized as a great step forward. In fact the whole car-service set-up, which effects a pooling of the total car ownership of the country with a minimum of back-hauling, is an achievement of which the railroad industry is justly proud. For forty years, the per diem plan as set up in 1902 served its purpose well.

By-product of Inflation

But even Eden had its snake. The snake in the per diem garden appeared in the price inflation of the last dozen years. The railroads whose traffic was characterized by heavy freight origination were the big car-owners and they looked to their per diem credit balances to compensate them for that ownership.

But when it comes to replenishing their car supply, they rightly conclude that the per diem return is not sufficient to justify buying an adequate number of new cars at inflated prices. The Pantzes have a simple solution to the problem thus presented—raise the per diem

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This article was written prior to the filing of the lawsuit against Mr. Norton as trustee of the NYS&W (Railway Age, *March 16, page 10), and his discussion here does not embrace the issue raised in that lawsuit.* Railway Age *is glad to extend to Mr. Norton the hospitality of its pages for the presentation of his argument favoring graduated per diem rates. It is equally hospitable to any other expression from its railroad readers on this important and controversial issue.*—EDITOR.

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rate. This they are able to do through the voting procedures of the A.A.R. These procedures do not give a vote to each member, but a vote to each car. Thus it happens that a relatively few big car-owning roads can set the per diem rate at whatever figures they choose. They have doubled it in the past ten years.

This has not been done without protests from some of the terminating lines, the pattern of whose traffic saddles them with perennial per diem debit balances. These roads object to an increase in the per diem rate in greater ratio than the increases in freight rates. Otherwise the benefit of increases in freight rates is partially denied to them by disproportionate increases in the freight car per diem rate. The result of this and other factors is a per diem charge which is too low to meet the cost of owning new cars and is much higher than the cost of owning old cars—and old cars are still 80 per cent of the railroads' combined fleet. This flat per diem rate therefore provides no incentive for the building of new cars but it does provide an incentive for retaining in service enfeebled veterans deserving of retirement.

To meet this situation, some of the heavy terminating roads have suggested a graduated per diem rate based upon the age—and hence (usually) the original cost—of the cars in service. This is designed to put a premium on the construction of new cars and to eliminate the premium which the present system puts on the retention of superannuated equipment.

Mr. Pantz, whose Eastern Pacific is one of the roads which has profited heavily by the increase in per diem received on its old cars, promptly fetches out from his accumulation of maxims the familiar declaration that the use of anything but a uniform per diem rate would require an insupportable increase in the cost of car accounting. Mr. Pantz prefers to ignore the fact that the comptroller of one of the larger terminating lines has devised a method of accounting for a graduated per diem rate, the added cost of which would be trifling—if indeed there were any added expense at all.

Cars would be grouped according to age with a commensurate per diem charge for each age group, including a rate for new cars which would not penalize the owners. The A.A.R. Car Service Division would calculate the average per diem for each ownership and issue a table showing the resulting per diem rate for each car-owning road. With this table before him, the billing clerk need lose little time in making his billing extensions. The billing machine finds it no more difficult to multiply by $1.69 or any other average than it does to multiply by $2.00 or even a higher figure. The per diem list might be revised semi-annually to reflect changes in a road's average age of cars owned.

"Operation Glacier"

Under this plan—which to follow military precedents might be called "Operation Glacier"—all railroads would have a financial incentive to retire old cars and to build new ones, both of which actions would increase their per diem credits. Such an outcome, however, deprives the beneficiaries of the Pantz philosophy of the above-cost revenue they now receive from retaining in service an abnormal ratio of superannuated cars. Is the benefit that these roads receive from the present situation sufficient to compensate even them for their share of the probable loss of the entire industry in traffic—due to inadequate car supply?

The Pantz philosophy takes no account of the fact that there are many cases where two or three roads have specially equipped cars to handle a particular service, dividing the cost between or among them—a break in the uniform per diem plan. The A.A.R.'s own machinery has been used to set up a special $50 charge on heavy-duty flat cars which is prorated among the roads sharing in the haul—another leak in the dogmatic dike of the uniform per diem rate.

While these considerations have not shaken the maxim-shielded position of the Pantz school of thought, its adherents have now been confronted by a new and even more attention-worthy challenge. An outstanding analyst, Fairman Dick, in an address on November 19, 1952, brought together and presented statistics indicating the probability that the railroads as an industry are losing a substantial volume of remunerative traffic by their failure to provide modern high-capacity and lading-protecting equipment in adequate quantity.

This is the kind of equipment, it will be recalled, that the V.P.O. of the Eastern Pacific wanted to obtain and Mr. Pantz firmly refused to go along, for the very good reason that, off-line, such equipment wouldn't earn its keep under the present per diem system.

Now what could happen if we were to go in for Operation Glacier? The per diem rate for each road could reflect and repay not only its investment in new cars of the ordinary type, but its investment in specially equipped cars and its investment in heavy-duty flats, and also its investment in high-capacity, lading-protecting cars. As Mr. Dick figures it, such an investment would not only pay for itself but might conceivably almost double the present net earnings of the railroad industry.

Success in the modern world requires not only holding fast to that which is good but, in equal measure, grasping without undue delay that which is better. The Pantz philosophy clings to an attitude which—a virtue in moderation—ceases to be such when it operates, as it undeniably does now, to shrink both the quality and quantity of freight cars, and hence to deprive railroad service of its full potential of attractiveness in a highly competitive transportation market.

BACKSTOPPING SALES FORCE

(Continued from page 65)

rate quotations); and (4) an agricultural bureau devoted to the specialized needs of agricultural traffic.

The principal beneficiaries of this new organizational setup are the off-line sales offices. The service bureau provides them with a home office contact which is always on duty—a place they can send requests with the knowledge they will be handled promptly and correctly.

Although it is difficult to evaluate the dollars-and-cents return on the new arrangement, the traffic department believes the integration and expansion of its service functions have enabled the Soo Line to attract and hold more overhead traffic.

What Diesels Mean to Railroads

Charles Kerr, Jr., of Westinghouse Electric takes a backward look at how the diesel got here, outlines way to improve it, and estimates its future

The diesel locomotive consists of a prime mover, an electric generating plant and an electric drive, and operates as a moving vehicle. Yet its price per horsepower is less than that of a central station, normally built in larger capacities for stationary service. Its overall efficiency equals or exceeds the use of central station produced electrical power. Its fuel cost to produce a horsepower-hour of useful work is equal to or less than the average price of industrial power. Its cost per pound of material is comparable to automotive prices with the latter's huge production. And finally, its anticipated life, measured in miles, runs into the millions.

Characteristics of the diesel-electric locomotive are thus summed up by Charles Kerr, Jr., of Westinghouse Electric Corporation, in a paper which he presented at the recent annual meeting in New York of the American Institute of Electrical Engineers. This summation he supported by a review of operating characteristics which clearly indicate the reasons for the present prominence of the diesel in the railroad motive power picture, and which suggest its probable future progress. Some of Mr. Kerr's remarks follow.

Lower Cost Operation

"The ability of the diesel-electric locomotive to deliver full power at all speeds has enabled railroad operating departments to remove many past restrictions in the assignment, dispatching and utilization of motive power. Diesel locomotives thereby can be used more hours during the year, they can be run more miles, and as a result, the railroads can be operated by fewer locomotives. Thus, while the diesel may be a more expensive locomotive than the steam locomotive which it replaced, the

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total ownership of locomotives has been so reduced that modernization with diesels has been achieved at an overall attractive investment cost.

"As motive power operation accounts for a large percentage of total railroad operating costs, the diesel has contributed abundantly to the maintenance of profitable operations by effecting economies in nearly all phases of locomotive expenses.

"While these economies cover a broad gamut of expenditures affected by motive power, the major portion of their total dollar value derives from three sources. Improved hauling characteristics of the diesel produce such transportation economies as larger and, therefore, fewer trains, reduced road delays, longer engine runs, reduction in helper service and elimination of double heading. Improved efficiency of the diesel produces economies in the cost of fuel, even though a fundamentally higher-cost fuel has been used. And lastly, although by many standards it is a more complicated device than the steam locomotive, the diesel can be repaired and serviced for a lower overall expenditure. In many instances, these economies have produced annual savings of 20 to 30 per cent on the initial cost. It is extremely difficult to find places for capital investment with a better return.

Fuel Supply for the Future

"The railroads, as the backbone of our transportation system, must operate with a fuel which not only can be economically burned, but a fuel which is in abundant and assured supply at a reasonable price.

"Until comparatively recent years, coal furnished the United States with its major source of energy for all power needs. This dominant use of coal contributed to the continuing use of the steam locomotive and its desirability as a motive power unit. The great strides made by the oil industry in providing an abundant and comparatively assured source of liquid fuel have made it possible for the railroads to turn to oil as the primary fuel for their operations.

"Dieselization of the railroads will not materially affect the nation's overall demands on its oil resources. Oil needed to move all rail traffic is rather insignificant compared to our total national usage. One reason for this is the highly efficient use of oil by the railroads compared to movement by highway. In addition, the retirement of oil-burning steam locomotives with their poor efficiency has decreased the railroad demands for oil about as rapidly as dieselization has increased it.

"For the immediate future, it seems certain that most forms of land transportation will be geared to oil as their fuel. Its advantages for transportation purposes are too great to anticipate any other trend. By dieselizing, the railroads will be high on the list of those that are using this fuel efficiently.

"At a time when it was most necessary for the railroads to have new and more economical motive power to reduce costs and to improve their competitive position, the diesel was the only proved locomotive superior to steam that could be produced and installed at a rapid pace, and that could be financed without jeopardizing railroad solvency. Two proved types were available—the straight electric and the diesel-electric. No one can deny the excellent operating characteristics of the electric locomotive, but electrification could not meet the pressing needs then facing the railroads. It could not have been installed with sufficient rapidity, adequate power supply was not available, and universal electrification could not have been financed under restrictions imposed on railroad capital.

"On the contrary, the diesel lends itself to mass production, it can be installed without major changes in railroad fixed property, its sources of fuel are assured for the foreseeable future, and through equipment trusts or leasing agreements, its financing can be handled without mortgaging the railroad plant.

"It is reasonable to inquire if the diesel, as we now know it, is the ultimate in locomotive refinement, whether current locomotives will be replaced by better diesels of radically different characteristics, or whether an entirely new type of prime mover will replace the diesel engine. While none of us can predict the future with accuracy, some of the more pertinent characteristics of future locomotives can be envisioned in the light of current economic and technological developments.

"The diesel has introduced to locomotive design, construction and performance certain features that seem certain to endure, irrespective of any future prime movers that may make their appearance.

DIESEL FEATURES THAT WILL ENDURE

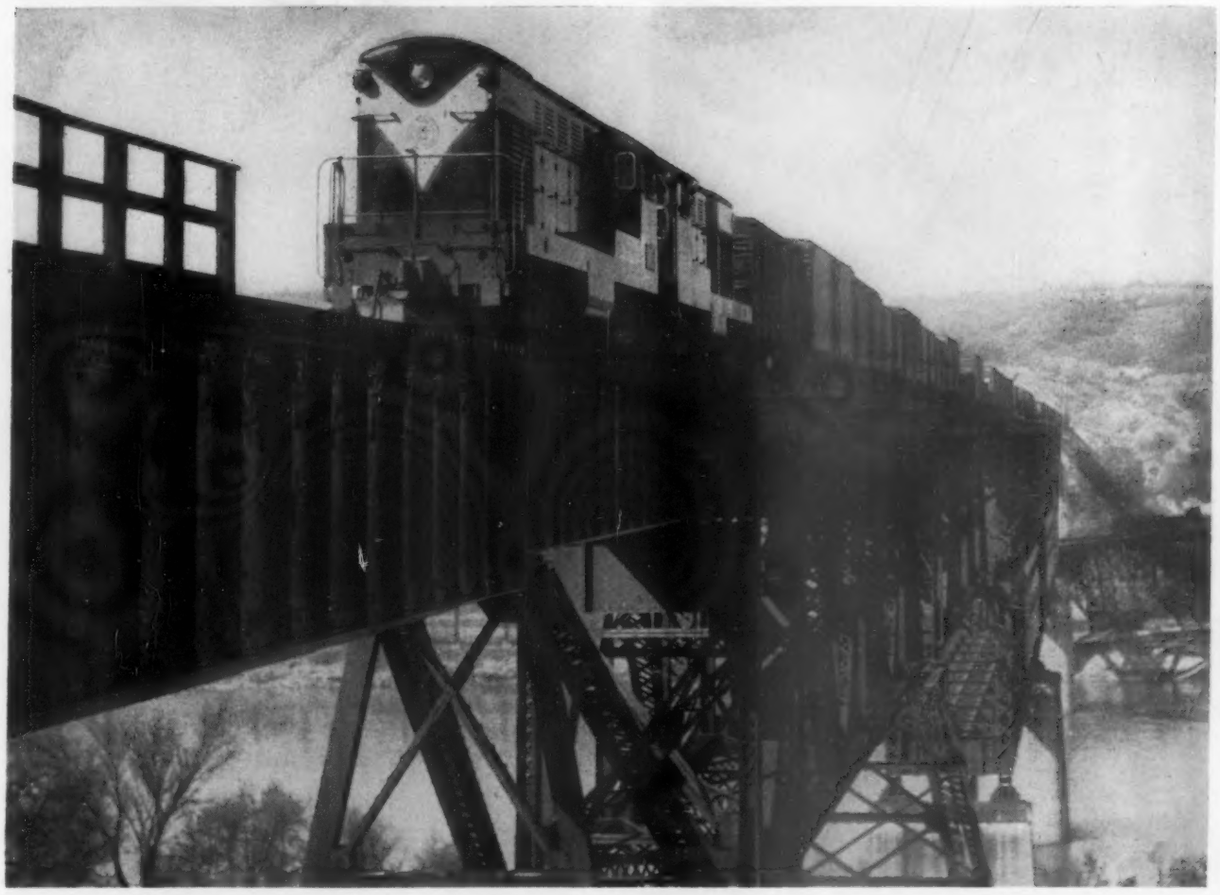
- **The torque converter transmission,** because it produces ideal drawbar performance. This feature is so fundamentally correct that its absence in any locomotive from now on seems impossible. Today, this transmission is the electric drive. In the future, mechanical transmissions may be tried as possible competitors, but their acceptance seems doubtful unless they offer a performance and a reliability equal to that of the electric drive. The only result that can be anticipated from such competition is an improved transmission irrespective of its final form.

- **Locomotive weight carried only on useful axles.** The ease with which the electric drive can be applied to all wheels, and the advantages gained thereby, will preclude designs which do not make full use of the locomotive weight for traction purposes.

- **Locomotives will be built in standard units,** capable of multiple operation to form locomotives of any desired capacity. The operating flexibility of this arrangement is too alluring to be cast aside.

- **High availability and extreme flexibility** have proved their worth to such an extent that the railroads will never accept less than present standards. In fact, it is reasonable to anticipate demands for greater flexibility which will permit any locomotive to be used in more diverse services.

- **Use of fuels which can be easily handled** henceforth will be most attractive to operating personnel.



"Nothing is ever perfect. Upon close examination, we can see where the diesel may be improved or where it may be vulnerable to competition. It is along these lines that changes in locomotive design may occur within the immediate future.

"All forms of transport continually raise their operating speeds. This trend can have only one effect, the average horsepower of locomotive units will continue to increase. Prime mover design will be dominated by an urge to secure more horsepower without corresponding increase in weight or space requirements.

"In spite of the high efficiency of the diesel locomotive, the cost of fuel remains a large item of expense in railroad operation. A continued effort will be made to decrease the cost of fuel (a) by better efficiency and (b) by developing prime movers which can burn a grade of oil with a lower price than presently acceptable diesel oils.

"If the long range prices of liquid fuels increase as many expect they will, the urge for lower fuel costs will become more pronounced, creating a more intensified effort to produce satisfactory prime movers for operation on the lower grade fuels.

"The maintenance expense of diesel locomotives is too high. These expenses are well distributed throughout the locomotive, engine, electric drive and mechanical parts. The repair expense of present locomotives with high mileage records may equal their original cost in three to five years. The diesel engine is often charged with being the main cause of these large repair bills. It is true that the engine and its accessories account for a large portion, but other parts of the locomotive, including the electric transmission, contribute to a too high degree.

"Motive power of the future must be simplified in its construction, especially by a reduction in the number of 'gadgets.' Complicated control systems and auxiliary apparatus, both in the prime movers and the transmission, may not account for too large a percentage of repair costs, but they do account for the majority of road delays, and it is these road delays that cause more operating difficulties than any other single item. They are the operating department's yardstick for measuring locomotive reliability.

"The survival of the diesel as the dominant type of motive power on the American railroads seems threatened only by the gas turbine. The railroads should have no fears should this type of locomotive make big inroads on the diesel. It can only succeed because it proves to be a better and more economical prime mover for locomotive service. Locomotives so powered will be marked more by operating similarity to the diesel than by any major points of dissimilarity. Nothing produces progress like competition. Consequently, two successful and proved competing types of locomotives can only result in better locomotives, the objective we are seeking."

1 After the subgrade has been graded to the best possible condition, crossties are hauled out on trucks and unloaded at their approximate use location. This is generally done at night, ahead of the day track-laying gang.

2 The special gage rods also are distributed ahead of the track-laying work, generally at night. These rods have swinging stops which are positioned parallel with the track when being applied, then turned at right angles to engage the rail bases.

5 Rails, with six-hole joint bars attached loosely at one end, are swung 180 deg. from special rail-rack cars. When empty, each rail-rack car is dismantled.

6 The rail crane lifts the rack from the trucks and trucks from the track. Another crane, behind the rail gang, reassembles the cars on the rails.

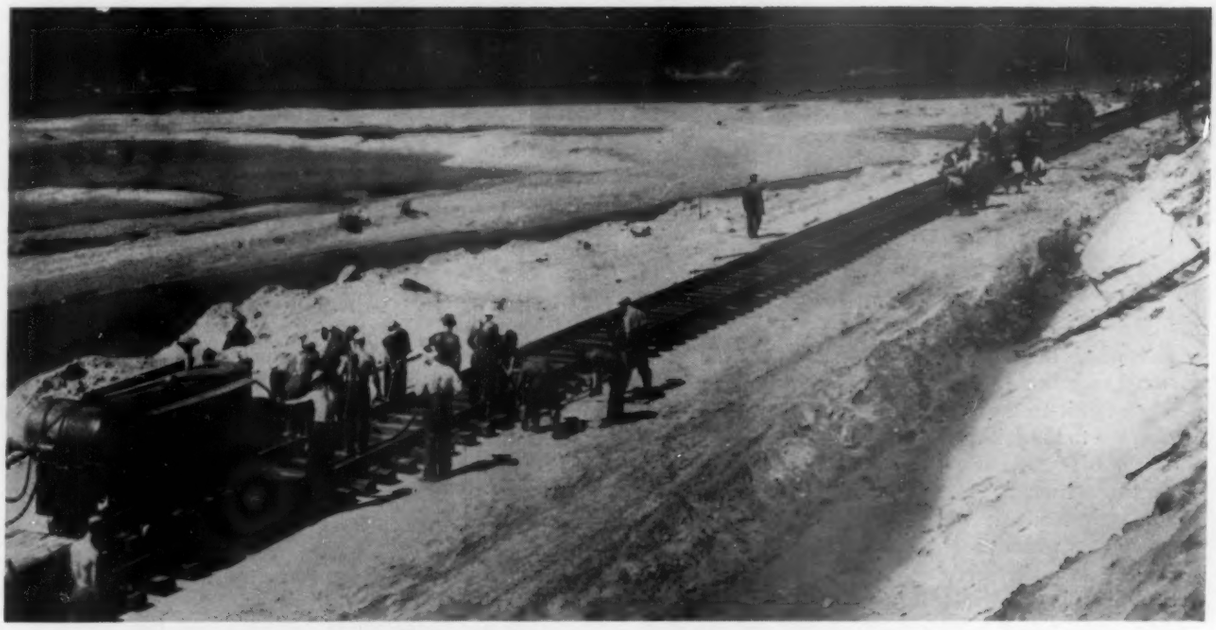
DEVELOPED ON THE QNS&L . . .

A Fast Way to Lay New Track

Easily applied gage rods and demountable rail-rack cars facilitate building 360 miles of line to reach iron ore deposits

3 One unit of the day force places the crossties to proper alinement and spacing on the subgrade, and is followed by the rail-laying gang. The ties are creosoted hardwood, most of which are shipped in from Texas.

4 The newly laid rails, of 132-lb. RE section, are not spiked at this time but are held apart at the proper distance by the special gage rods, applied four to a rail, until the crane and work train have passed over them.



7 Other work units of the rail gang follow behind the crane, inserting tie plates and spiking the rails to the ties. A ballasting gang follows several days behind the rail gang. Up to 8,000 ft. of track have been laid in a single day.

Conventional methods of laying new track were not fast enough to meet the construction schedule established for the Quebec, North Shore & Labrador*, the 360-mile line being built between a St. Lawrence River terminal at Seven Islands, Que., and iron ore deposits at Knob Lake, Labrador.

Uncertain world conditions made it imperative that this line be completed in the shortest possible time so the ore could be available to steel mills in the United States. To speed track construction a method was devised to use demountable rail-rack cars for hauling the rails and special rods for holding the rails to gage while the rail crane and work train advance over them.

During the night, gage rods and half enough crossties for a day's work of the rail-laying crew are hauled out and distributed by trucks. Since the railway grade is also used as a roadway for contractor's vehicles, it is generally necessary to pile the ties along the sides of the grade near their point of use until an advance unit of the day crew can place them in proper alinement. On the other hand, the gage rods are unloaded at the rate of four per 39-ft. rail on the grade.

The rail is loaded on flat cars at Seven Islands and

*For a general description of this line see *Railway Age* of July 23, 1951.

THE SPECIAL RAIL-RACK cars are of original design. Each of them consists of two standard freight-car trucks, on which upright stanchions have been built, and a rack made from rails. The rack is keyed to the trucks by meshing fixed cross-ties.

a pair of six-hole joint bars is attached loosely at the forward end of each rail. The rail is then hauled to the siding nearest to the rail head and transferred at night by a crane to the rail-rack cars. About 70 rails are loaded on each of these cars. Each morning a work train—consisting (from head end to rear) of a Burro crane, six to eight loaded rail-rack cars, a passenger car, two or more cars with sufficient ties for completing the tieing of the track, a car carrying tie plates, bolts and spikes, and a diesel locomotive—moves up toward the rail head.

The crane, which is self-propelled, and one car of rail are detached from the work train and move up to the end of the rails. The crane then picks up a rail from the rail car and swings it into place. Men on the ground heel the rail in by spreading the loosely fitting joint bars of the last-laid rail. One lightly tightened bolt is then applied to hold the rails together, while the rail is being alined on the ties and the gage rods are being applied.

Rail Cars Are Demountable

When one car of rail has been unloaded, the crane lifts the rack from the car trucks, sets it along the right of way, and removes the two trucks from the track. It is then coupled to another car of rail and resumes laying rail. As the work train moves up behind the crane, the remaining ties are unloaded from the supply cars, and the tie plates, bolts, spikes and other fastenings are distributed.

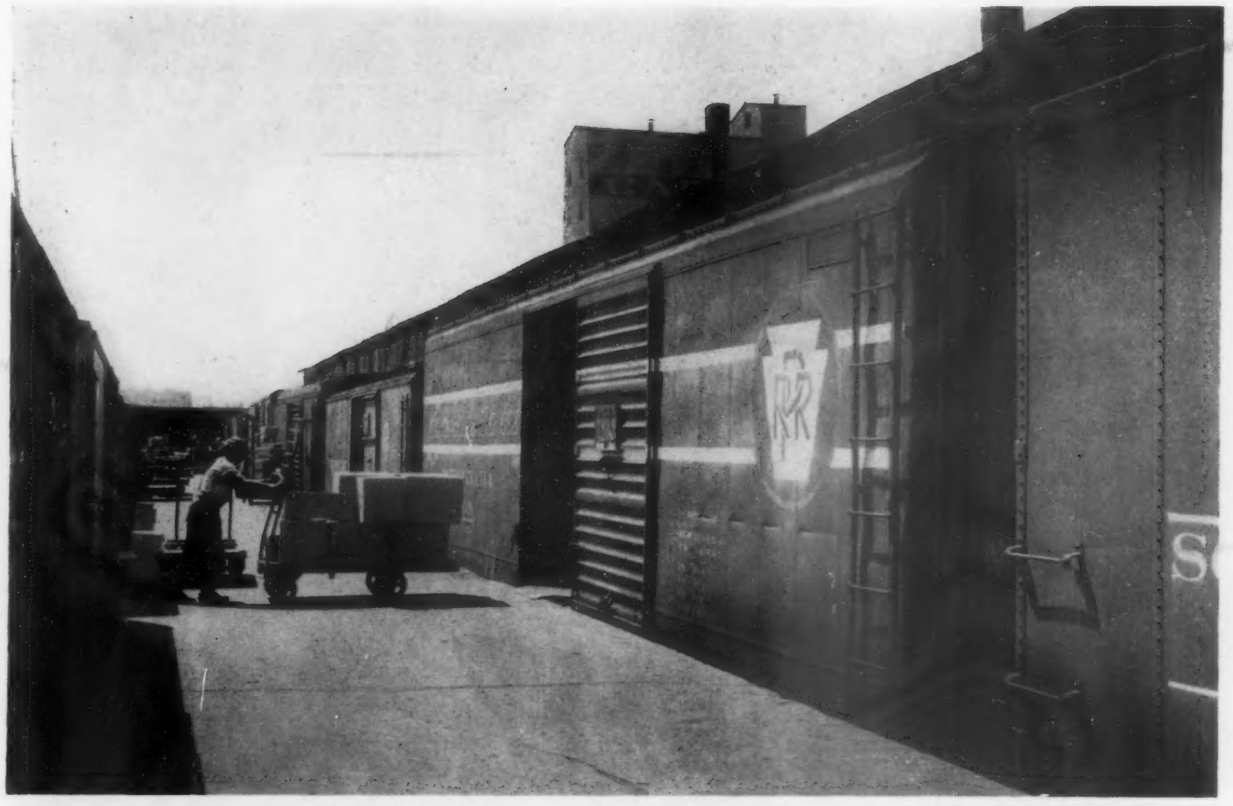
Behind the work train, a small crew inserts the remaining bolts at each joint and uses power wrenches to tighten them. The remaining ties are then inserted and spaced and, assisted by a power jack, the tie plates are inserted. Four ties per rail are hand-spiked by gagers, then all the ties are spiked by air hammers powered by a compressor.

Method Is Proved by Results

The use of the special rail-rack cars has proved to be a distinct advantage in the track-laying work as they eliminate the necessity of running to a passing track for switching out empty cars or of constructing temporary construction tracks for handling the switching. Also, a car of rail is always available immediately behind the crane.

The method has proved practical for meeting schedule requirements and has produced more track than than can be surfaced in a day by the ballast gang which follows behind.

In laying track to date, several daily records of about 3,000 ft. of track have been made. The maximum weekly production has been about 8.2 miles of track in a seven-day work week. It is expected that considerably better production can be realized when more completed grade is available ahead of the gangs. It is reported that enough track has already been laid to demonstrate the possibility of laying at least 10 miles of track in a week.



IMPROVED STATION PERFORMANCE has cut car delay at stations about 50 per cent in four months.

CHANNELIZING BY GRIFFIN PLAN BRINGS...

Better L.C.L. Service

- 31 per cent of shippers answer poll
- 56 per cent say service improved
- Some business regained . . .
- Shippers favor "plans" for other areas

Since shippers in Connecticut's Naugatuck Valley set up, about two years ago, the first of the so-called "Griffin Plans" for channelizing outbound l.c.l. into the best service routes, railroad performance in the handling of such traffic has been better than it was before the first plan began operation. On that the records of the New York, New Haven & Hartford and the opinions of shippers polled by *Railway Age* agree.

Since the New Haven began keeping overall performance records in August 1952, performance as scheduled improved 107.4 per cent (through December). Add to that the fact that 56.4 per cent of the shippers who replied to the questionnaire agreed that the service provided by the railroads has improved and the evidence for the Griffin Plan becomes pretty convincing. About 31 per cent of the shippers said better service has led them to give more business to the railroads. This would seem to be borne out by the fact that overall l.c.l. tonnage originating at stations participating in plans is decreasing less rapidly than at non-participating stations; the railroad reports that certain patrons are giving more business to the New Haven. Nevertheless, for a variety of reasons, l.c.l. tonnage on the New Haven as a whole continues to decline.

Not every shipper who said that outbound service has improved is yet entirely happy about the way the railroads are handling l.c.l. A Hartford traffic manager stated that while service has been expedited somewhat, the improvement has not been great enough to make the railroads "deserve additional tonnage." Another Hartford area shipper said that the overall service improvement has not been great enough, for "unless deliveries are effected immediately at destination the improvement will be negligible." The two comments are representative of the "yes"-with-reservations replies to a question about improved service. Several shippers stated that non-New England railroads should not resist the plan, especially since they normally "show absolutely no interest in l.c.l."

Shippers apparently have not merely taken the New Haven's word that their l.c.l. service has improved. The results of the *Railway Age* poll show that almost 50 per

MECHANICAL HANDLING EQUIPMENT is helping the railroads accelerate freight handling.

cent of the respondents give as the source of their favorable opinion word received direct from their customers. Many also stated that they trace a percentage of their own shipments, or that there had been a decrease in the number of tracing requests from receivers, or that their sales forces have told them receivers are better pleased with deliveries. Only 15 per cent of the respondents gave "information from carriers" as the basis for their opinion that outbound l.c.l. service was better since the Griffin Plan went into effect, and some said they had received information from one or more other sources.

Only 56.4 per cent of the shippers who responded to the questionnaire definitely stated that outbound l.c.l. service has improved since the inception of the channelizing plan in their area. Most of the rest of them expressed no opinion, although a number of shippers in the Providence area said since they had been participating in the plan five (or less) months when the poll was taken, it still was "too early to tell." Only one shipper said that service had not improved. Nevertheless, it probably is significant that 74.3 per cent of all shippers answering the poll said that similar arrangements set up in other territories would improve inbound l.c.l. service.

Channelized Routings

By and large, shippers seem to be making an effort to comply with the channelized routings as set up by the various organizations sponsoring the "Directories of Suggested Routings." About 33 per cent of the shippers stated that they are adhering to guide routings almost 100 per cent. Another 21.8 per cent of respondents to the

RESULTS OF GRIFFIN PLAN QUESTIONNAIRE

Concentration Station	Months Plan in Effect*	No. Inquiries Sent	Replies Rec'd.	Conform to Griffin Plan Routes: Almost 100%	90%	75%	50%	Less than 50%	Service Improved: Yes	No	More Business to Rails: Yes	No	Other G.P.s Improve Overall Service: Yes	No
Waterbury	24	48	17	7	3	2	....	2	10	....	6	8	14	....
New Britain	16	26	9	2	4	....	....	1	5	....	1	4	7	....
New Haven	14	25	6	4	....	....	....	1	3	....	3	1	4	....
Hartford	13	30	16	7	3	1	1	1	10	1	5	8	13	....
New London	10	7	4	2	1	....	....	....	3	....	1	2	2	....
Bridgeport	7	35	8	2	1	....	....	....	3	....	2	1	4	....
Providence	5	80	18	2	5	2	1	2	10	....	6	7	14	....
Totals		251	78	26	17	5	2	7	44	1	24	31	58	....

*At time questionnaire was filled in.

PERFORMANCE OF L.C.L. CARS

Forwarded from Griffin Plan Stations to Principal Off-Line Destination

Month	No. Cars	Per Cent on Time: Road Movement	Station Handling	Overall Service
August 1952	1,186	54.5	36.4	32.2
September	1,333	54.3	40.1	32.0
October	2,054	70.4	61.6	45.0
November	1,572	74.4	68.5	51.3
December	1,632	77.3	87.1	66.8
January 1953	1,706	75.7	80.8	59.7

questionnaire said they "followed the book" about 90 per cent of the time, and another 6.4 per cent of the shippers sent 75 per cent of their rail l.c.l. shipments via the suggested lines. Altogether, therefore, 61.2 per cent of the traffic men who answered this inquiry indicated that they ship via the "approved" route between 75 and 100 per cent of the time. It seems that adherence to the plan routes is greatest in areas where directories have been in effect for the longer periods of time.

The most frequently offered reason for not adhering strictly to guide routes was "the customer tells us what to do." A Waterbury, Conn., shipper states that he has been able to "get around" this in most cases. This shipper advises customers of the advantages of the plan, and "in nearly 100 per cent of the cases they request us to follow the channelized routing."

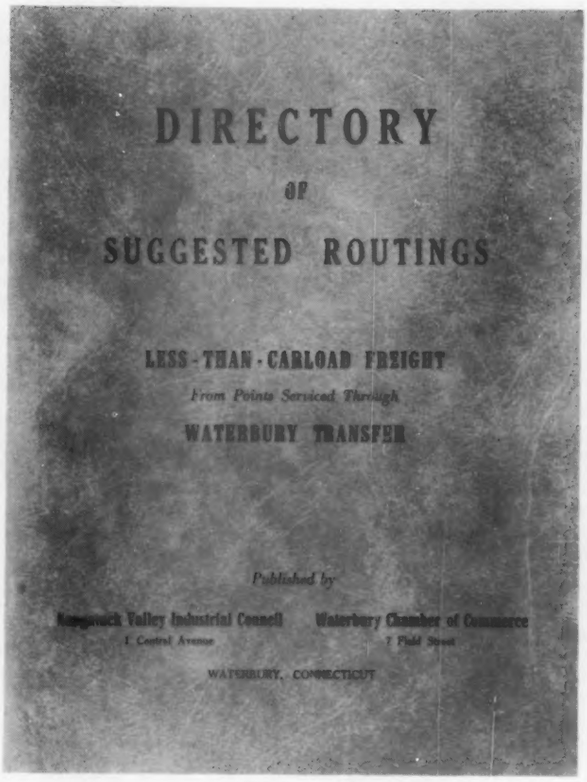
A few shippers expressed concern over the attitude of non-New England roads toward the channelized routing plan.

According to these men, the railroads which don't get "their share" under the guide routings are urging shippers to disregard the directories, in spite of traditionally showing "no interest in l.c.l.," as one man put it. Another expressed some resentment that these roads should "ask for business regardless of the result that comes from poor service."

Most shippers did not offer any suggestions for further improving the service. However, those who did reply were almost unanimous on two points: (a) deliver freight within a reasonable time after arrival; and (b) expedite handling at transfers.

Time Reduction

One derivative from the improved service which has been given l.c.l. under the Griffin Plan is a substantial reduction in turnaround time of box cars, measured in car-days. In August 1952, the first month for which such performance statistics are available, cars forwarded from Griffin Plan concentration stations suffered an overall average delay of 1.376 days beyond schedule time. In December this figure was reduced to .586 days. Thus about 19 hours per car were saved. It is probable, therefore, that some per diem savings are being made by railroads which are part of plan routes. Such savings may be very small, of course, yet it is a significant fact that a lot of car-days are being saved. Station department personnel, as well as employees responsible in any way for train movement, can claim part of the credit for this accomplishment.



THE "WATERBURY" routing guide.

The New Haven management thinks well of the Griffin Plan and is giving the plan its all-out support. The improved service resulting from the plan has brought some business back to the railroads, but this has not been great enough to reverse the general downward trend of l.c.l. tonnage. However, most of the points served by the "plans" have been getting the results of improved service for less than a year and it is possible that the tonnage situation could improve somewhat. There are other reasons for the New Haven's supporting the plan: (1) if carriers provide shippers with good service then the shipper will not be able to hide behind the "poor service" curtain when diverting his traffic to other modes of transportation; (2) better service cannot help but give patrons a better opinion of the carriers providing that service; and (3) "it's not costing us anything, in fact we're saving money," because of the better use of railroad facilities and services.

HOW IMPROVED PERFORMANCE REDUCES CAR DELAY*

	Total Cars		Days Delay		Av. Days Delay Per Car	
	Aug. '52	Dec. '52	Aug. '52	Dec. '52	Aug. '52	Dec. '52
Road Movement	1,186	1,632	981	514	.827	.315
Station Handling	1,186	1,632	651	443	.549	.271
Total	1,186	1,632	1,632	957	1.376	.586

*Delay=Time beyond scheduled road movement, contemplating unloading day of arrival.

PATRONS' IDEAS BUILT IN . . .

"Beauty Sleepers" for 3 Railroads

Pullman-Standard and Pullman Company collaborate with carriers in a survey to determine the most acceptable interior arrangement—First order, 29 cars for L&N, C&EI, and NC&StL

On March 5, the Louisville & Nashville took delivery of the first "Beauty Sleepers," recently built by the Pullman-Standard Car Manufacturing Company to a new design which promises to meet passenger comfort requirements to an unusual degree and to mark a distinct forward step in sleeping car service. The entire order—originally reported in *Railway Age* December 10, 1951—consists of a total of 29 cars, 22 for the L&N, three for the Nashville, Chattanooga & St. Louis and four for the Chicago & Eastern Illinois.

The new sleeping cars are identical and cost $163,000 each or a total of $4,727,000. They will be placed in service on the "Humming Bird" between New Orleans and Cincinnati, and Chicago; between Montgomery, Ala., and Chicago and St. Louis; and between Cincinnati and Memphis. On the "Pan-American" they will be made available between Cincinnati and New Orleans, and Nashville, Tenn., and Mobile, Ala. On the "Georgian" they will see service between Chicago, St. Louis and Atlanta, and on the "Gulf Wind" between New Orleans and Jacksonville.

Results of Cooperative Study

The cars are 85 ft. long, made of low-alloy high-tensile steel with Pullman-Standard welded girder-type construction, and utilize stainless steel for parts especially subject to corrosion.

In their interior arrangement and equipment the cars embody the result of an extensive cooperative study by the three railroads, the car builder and the Pullman Company, which will operate the cars under lease from the owning railroads. The light weight is 152,000 lb., of which the trucks account for 42,000 lb.

Over 2,000 suggestions and comments from individual users of sleeping car service were carefully indexed, investigated and evaluated for improvements which would satisfy the traveling public and still prove practical from a railroad operating and maintenance standpoint. Customer preference dictated the following principal features of design:

Principal Features

- **Floor plan** in the 6-4-6 arrangement, which consists of six open sections, four S-type double bedrooms and six S-type roomettes, S being the Pullman-Standard designation for use with its most modern sleeping car plan. The variety of arrangements in this car was specifically requested by travelers and covers a broad range in price selectivity.
- **Location of bedrooms** in the center of the car to provide the best riding qualities, as generally requested for this higher-revenue space.
- **Open sections** offering conveniences and comforts for the many travelers who still prefer the congeniality and economy of this type of accommodation. An especially desirable feature from the feminine standpoint is the stair-type folding ladder which makes the upper berth easily accessible without calling the porter. Modern

ceramic-tile men's and women's lounges in either end of the car give added luxury at budget cost.

- **S-type roomettes** incorporating numerous features of general interest, such as provision for operating the bed without stepping out into the car aisle and an improved counterbalance mechanism for the bed.
- **S-type bedrooms** distinctive for convenient en suite arrangement, separation of toilet and lavatory facilities, especially comfortable beds and chairs, as well as attractive decorative treatment.

Roomette-S Features

The special roomette, designed for single occupancy, has many of the bedroom advantages, including that of complete privacy. It has a washstand convertible into a dressing table, which is complete with foot-operated water valve for supplying water at desired temperatures, thus leaving both hands free for washing.

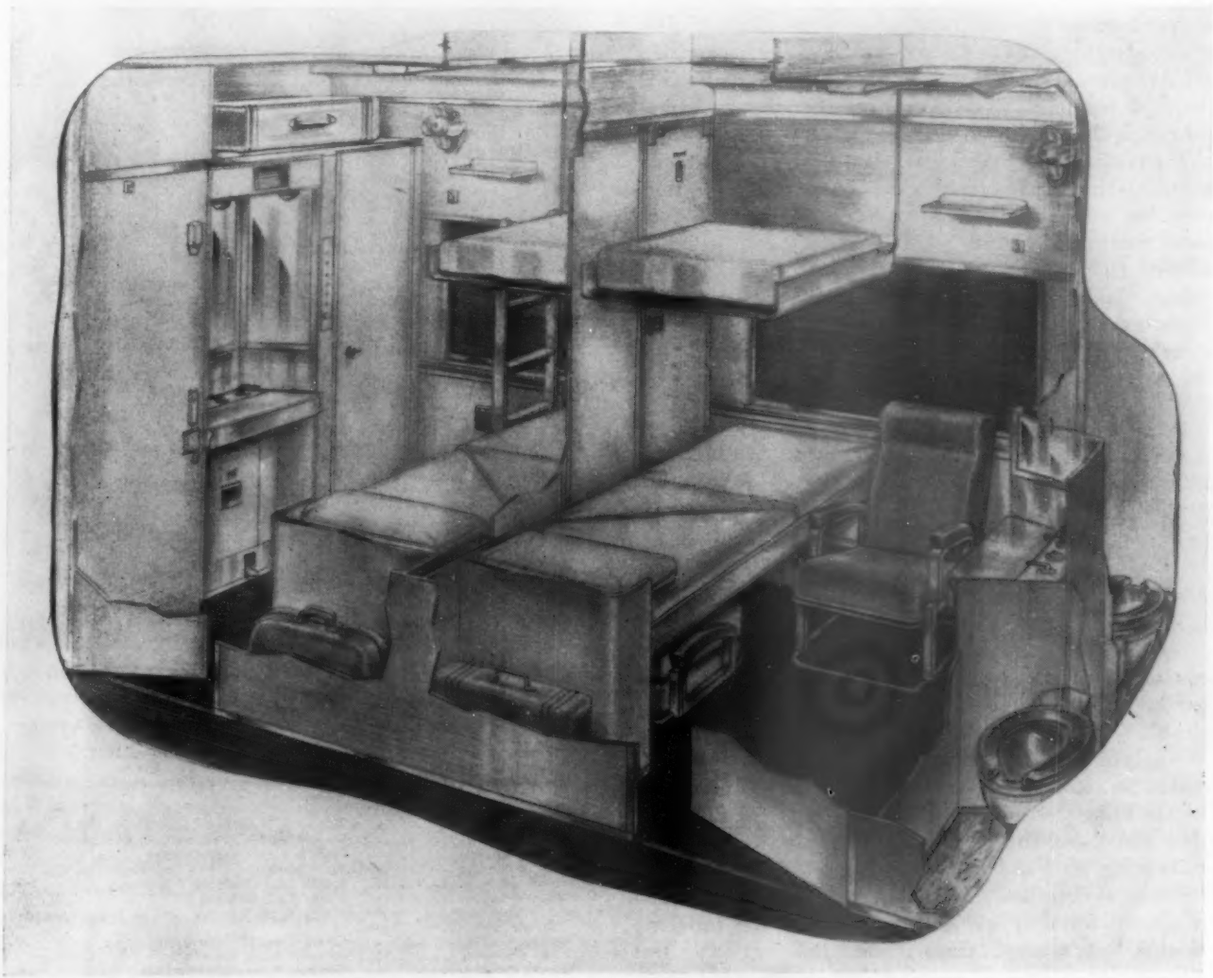
The folding bed has a cutaway section which allows for raising and lowering it with the door closed. The new counterbalance, concealed in the bed recess, gives fingertip control in both raising and lowering, so a slightly built person has no difficulty operating it. The release lever also has been lowered for the convenience of passengers of less than average height.

The seat back is equipped with arm rests, one with a plastic face for use as a shelf for beverages, etc. A section table can be installed, giving the comfort and convenience of dining without leaving the room. This table may also be useful to the businessman with work to do en route.

Bedroom-S Accommodations

The 6-4-6 floor plan arrangement eliminates rooms at each end of the car, the four bedrooms being located in the center. It is expected that families will find the use of two rooms en suite particularly desirable. This arrangement is made possible by a folding sliding partition concealed in a pocket between the adjacent bed recesses. The redesigned partition has, among other things, greater rigidity and sound-deadening quality.

The rooms have beds installed on the passageway partition which fold down crosswise of the car to form lower berths. The en suite arrangement permits making up the two lowers as twin beds, which is especially appealing to a mother traveling with a small child. Also,



ARTIST'S RENDERING of a pair of bedrooms with berths made up. The partition between the beds in adjoining rooms opens in three folds which are then slid into the recess between the heads of the beds. Luggage space is provided between each bed and the corridor partition and above the toilet.

BEDROOMS EN SUITE for day occupancy. Each has two folding chairs.

LAVATORY AND TOILET facilities are completely separate in the new bedrooms.

each person has complete lavatory and toilet facilities. Another convenience of the en suite arrangement is that a larger section table can be provided for either dining or card-playing purposes, for two to four people.

Maximum privacy is assured by enclosed hopper facilities, and separation of hopper from the lavatory which permits individual use of each at the same time.

The washstand is made of vitreous china. A triple mirror is installed, with a vanity cover which swings over the washstand to make a dressing table. A foot pedal controls the value which supplies wash water at selected temperatures.

More floor space is made available by elimination of the usual sofa. Two folding lounge chairs allow passengers to ride in any position desired.

Beds Improved

Two major improvements in the cars, made as a result of the study of passengers' criticisms and suggestions, are provision for easier opening of wall-type folding beds, and a new type of mattress. The bed counterbalance gives easy control in both raising and lowering the bed. A simple release lever at the foot of the bed disengages it from the night position. Because of the counterbalance design, the bed has no sudden upswing or whip. The counterbalance for the ceiling beds used in the bedrooms has been improved so the bed can be easily opened and closed.

All beds in the sleeping rooms are completely redesigned to accommodate the new-type mattress, developed by the Pullman Company after many years of investigation and tests. The new mattress consists of a double coil-spring unit and a rubber topper with no supplementary spring base, and is of greater thickness than matresses formerly used. In redesigning the beds, no sacrifice was made in strength, and sufficient space was allowed for storage of bedding and equipment.

The car interiors combine to an unusual degree functional design which utilizes every inch of space, and color selections well adapted to create an atmosphere at once relaxing and restful.

Pleasing combinations of various shades of blue, apri-

PARTIAL LIST OF MATERIALS AND EQUIPMENT

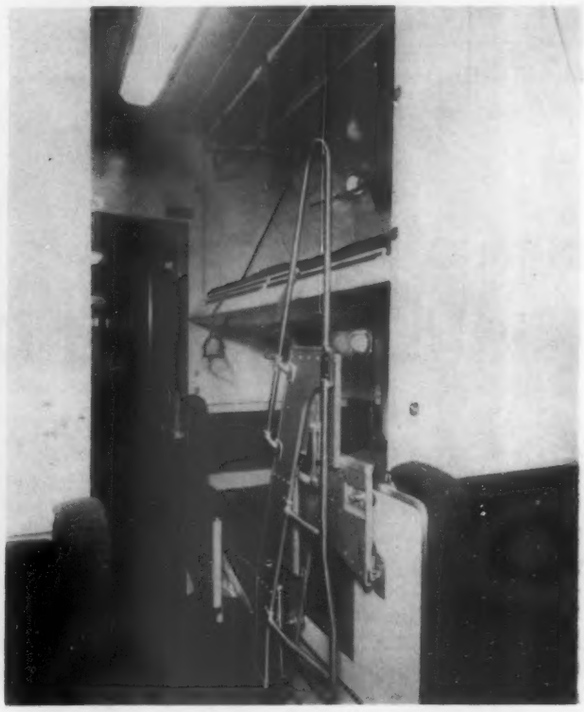
on 29 New Sleeping Cars Built by Pullman-Standard

Truck castings and platform center sills	General Steel Castings Corp., Granite City, Ill.
Truck springs	Crucible Steel Co. of America, Pittsburgh
Wheels	Standard Steel Works Div., Baldwin-Lima-Hamilton Corp., Burnham, Pa.
Roller bearings and boxes	Timken Roller Bearing Co., Canton, Ohio
Friction snubbers	Houdaille-Hershey Corp., Houde Engineering Div., Buffalo
Draft gear and drawbars	National Malleable & Steel Castings Co., Cleveland
Buffing device	Waugh Equipment Co., New York
Safety locking center pin	W. H. Miner, Inc., Chicago
Hand brakes	National Brake Co., New York
Clasp brakes	American Steel Foundries, Chicago
Air brake equipment	Westinghouse Air Brake Co., Wilmerding, Pa.
Air-conditioning equipment	Safety Car Heating & Lighting Co., New York
Multi-Vent ceiling panels	Pyle-National Co., Chicago
Air filters	American Air Filter Co., Louisville, Ky.
Open-section air outlets	Loeffelholz Co., Milwaukee
Steam-heat system	Vapor Heating Corp., Chicago
Circulating fans	Westinghouse Electric Corp., Pittsburgh
Electric wire and cable	Okonite Co., Passaic, N. J.
Generator drive	Spicer Manufacturing Div. of Dana Corp., Toledo
Genemotor and lamp regulator; motor alternator, exhaust fans	Safety Car Heating & Lighting Co., New York
Batteries	(19) Electric Storage Battery Co., Philadelphia (10) National Battery Co., St. Paul
Annunciator	Edwards Co., Norwalk, Conn.
Standby and train-line receptacles	Pyle-National Co., Chicago
Lighting fixtures	Luminator, Inc., Chicago
Insulation	Johns-Manville, New York
Pipe covering	Gustin-Bacon Manufacturing Co., Kansas City, Mo.
Vestibule steps, trap doors	O. M. Edwards Co., Syracuse, N. Y.
End dor operators	National Pneumatic Co., Boston
Door closer	Yale & Towne Manufacturing Co., Stamford, Conn.
Window sash and curtain fixtures	Adams & Westlake Co., Elkhart, Ind.
Lounge chairs	Dwight Austin Products Co., Kent, Ohio
Foam rubber	Beck & Blatchford, Chicago
Ceramic tile	American Mosaic Tile Co., Louisville, Ky.
Water Tanks	Scaife Co., Oakmont, Pittsburgh
Hoopers	Duner Co., Chicago
Wall-type hoppers, washstands and dental lavatories	Crane Co., Chicago
Soap dispenser	Imperial Brass Manufacturing Co., Chicago
Water cooler	Cordley & Hayes, New York
Drinking-cup dispenser	Dixie Cup Co., Easton, Pa.
Paper towel cabinets	Scott Paper Co., Chester, Pa.
Fire extinguishers	Pyrene Manufacturing Co., Newark, N. J.
Illuminated car number signs	Arrow Sign Co., Chicago
Defect card holder	Railway Devices Co., St. Louis

THE ROOMETTE BED is narrowed toward the foot. Counterbalancing permits finger-tip control.

THE FOLDING BED in the roomette may be let down or closed with the occupant inside and the door closed.

PASSENGERS have access to upper berths without calling the porter.



THE FOLDING LADDER is permanently affixed to the section end while berths are made up.

cot, gray and turquoise are used throughout. Kalistron wall covering is applied on exposed wainscot in rooms, open sections and passageways.

Leaf pattern carpeting, in three colors complementary to the color scheme with which it is used, is laid in all rooms, open sections and passageways, while red and blue marbelle rubber flooring is applied in bedroom annexes and passageways at the ends of the cars. Flooring and wainscot in the men's and women's lounges and toilets are ceramic tile.

The car exteriors are painted a dark blue on sides and ends. The roofs are gray and the trucks and underbody, black. All striping and lettering is painted in synthetic gold, the railroad name appearing at the center of the letterboard and the name "Pullman" in smaller letters at each end. Individual car names are all selected from the many varieties of pine trees, such as "Curly," "Long Leaf," and "Yellow," as well as such territorially relevant types as "Alabama," "Kentucky" and "Tennessee Pine."

BLASTING: These men are drilling holes and placing dynamite charges needed because of the large amount of rock excavation required.

GRADING: The new 2.58-mile line slices almost directly across country, so heavy grading was necessary. Some cuts are as deep as 70 ft.

IN T&NO LINE CHANGE . . .

Kinks Removed Despite Terrain

Just west of its Devils River crossing in the rugged, broken country of western Texas the Texas & New Orleans (Southern Pacific Lines in Texas and Louisiana) has completed a line change which is notable for large benefits concentrated in a relatively short distance. Built at a cost of $450,000, the new line is 2.58 miles long. It cuts almost a mile off the distance of the old snake-like route constructed in 1882 through Castle canyon, eliminates 229 deg. of central angle by virtue of its fewer and lighter curves, has only one short bridge in place of the five structures on the old line, and saves seven minutes in the running time of trains.

Both the new and old routes were projected through rough terrain where excavation is rock for the most part. When establishing the line of the old route three-quarters of a century ago, the pioneer engineers had to keep in mind the cost of grading using blasting powder, wheelbarrows and mule-drawn slips. As a result, the alinement of this segment of the old route had a total of 449 deg. of central angle, including several 10-deg. curves and one 10 deg. 57 min.

The reduced cost of grading made possible by modern equipment, rock drills and large dynamite charges—moving as much as 5,000 cu. yd. with a single charge—made it possible to establish a new route, extending more directly across country, with a total central angle of only 220 deg. and a maximum curvature of 4 deg. 15 min. The line change also resulted in a small improvement in the maximum gradient, the new line being 1.0 per cent compensated for curvature as compared with 1.1 per cent, also compensated, for the old route.

The revised alinement presents a continuous series of alternating cuts and fills. The deepest cut is 71 ft., and nearby is a 48-ft. fill. About 271,000 tons of rock were moved in carrying out the project.

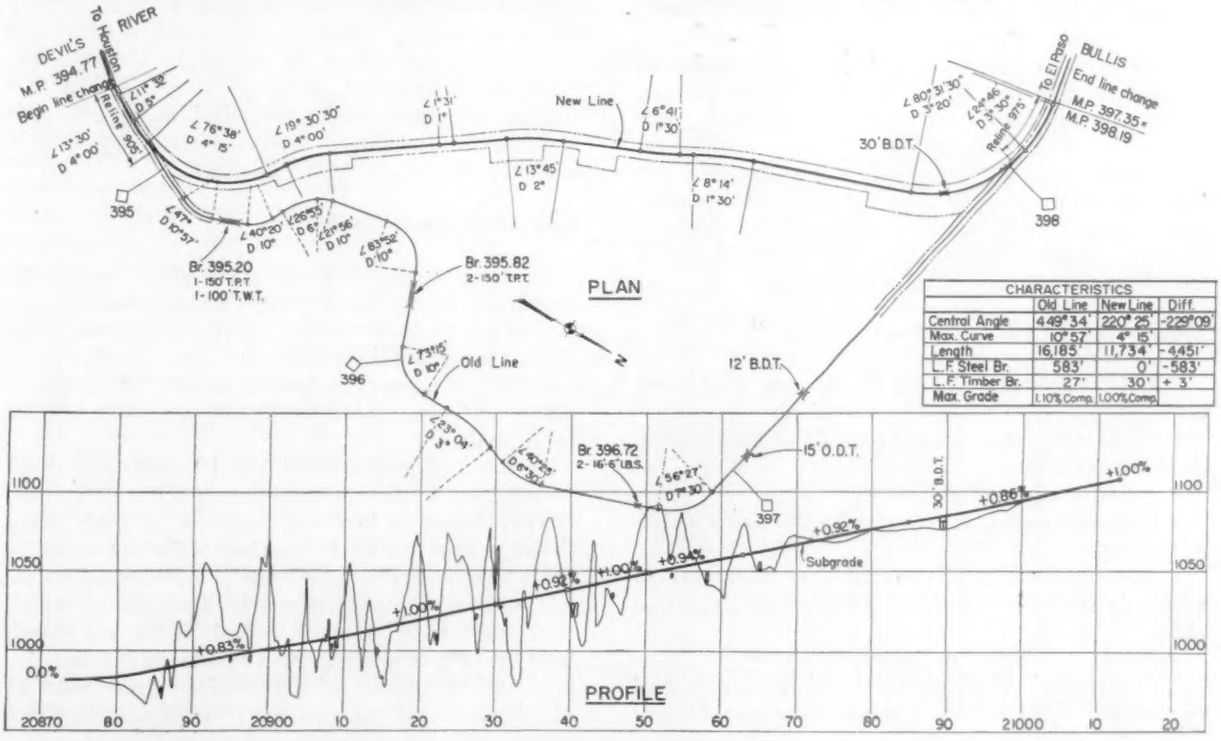
The new route will reduce future maintenance costs. There will be less track and right of way to maintain and only 30 ft. of bridge as compared with 610 ft. of bridges on the old line. The bridge factor is important because three of the five bridges on the old line were steel stuctures and hence would have been expensive to replace. The single bridge on the new route is a two-span ballasted-deck trestle.

The final location survey for this project was started in May 1952. Construction work began on July 8 under the general supervision of L. A. Loggins, chief engineer of the T&NO. R. G. Schultz of Houston was the project engineer.

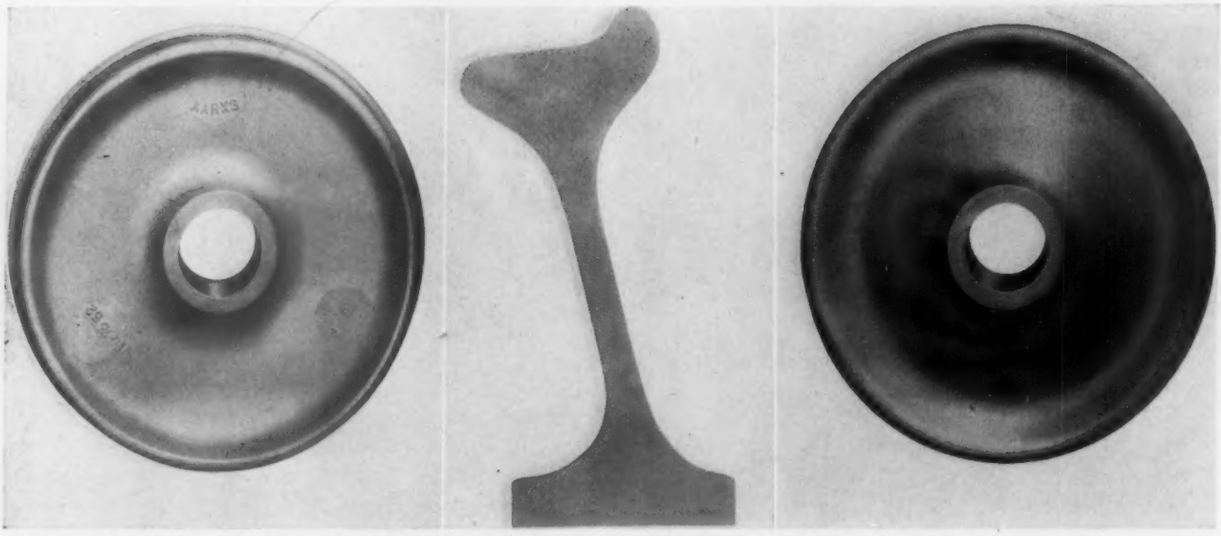
EARTH-MOVING: King-size hills, even by Texas standards, had to be engineered into a one per cent grade. Excavation totaled 271,000 tons.

SPEEDS TRAINS: The "Blue Streak Merchandise," first freight over the new track, saves seven minutes over the schedule formerly in effect.

PLAN AND PROFILE of the line change. This improvement is in western Texas between the Devil's river and Bullis. The new line eliminates a considerable amount of sharp curvature and three steel bridges. Grading was done by H. B. Zachary Company and track work was performed by company forces.



CHARACTERISTICS			
	Old Line	New Line	Diff.
Central Angle	449° 34'	220° 25'	-229° 09'
Max. Curve	10° 57'	4° 15'	
Length	16,185'	11,734'	-4451'
L. F. Steel Br.	583'	0'	-583'
L. F. Timber Br.	27'	30'	+ 3'
Max. Grade	1.10% Comp.	1.00% Comp.	



GRIFFIN CAST-STEEL WHEEL for freight service.

How X-3 Car Wheels Are Made

Griffin pilot plant at Chicago being expanded to make 360 electric quality steel wheels a day on full production schedule

For over ten years, the Griffin Wheel Company has been at work perfecting a new type of wheel for freight car service. Made of 0.75 carbon steel, cast in what is said to be the largest graphite mold ever constructed, this wheel has been designated Type X-3 by the Association of American Railroads and is called Griffin EQS (electric quality steel) by the manufacturer. One thousand of these wheels, originally approved for acceptance in interchange after January 1, 1952, are practically all now in service and the A.A.R. Wheel Committee recently recommended increasing the number to 100,000.

As reported in *Railway Age* October 6, 1952, the Griffin pilot plant at Chicago is being expanded and equipped to turn out 360 wheels a day at full production. A similar plant, but with about half that capacity, is under construction by the newly organized Griffin Steel Foundries, Ltd., at St. Hyacinthe, Que.

Advantages of the New Design

Physical advantages claimed for the new EQS wheel include:

- Better melting practice and control in relatively small electric-furnace heats;
- Unrestricted wheel chemistry;
- Improved design, as indicated by University of Illinois tests;
- More uniform product with close tolerances so wheels do not have to be machined to obtain equal tape sizes;
- Better appearance and balance.

The comparatively simple plant and unusual method of operation result in economies which the manufacturer believes will permit making EQS wheels and selling them in competition with other types of steel wheels. Even though service tests to date are quite limited, sufficient physical tests are said to have been made to assure a wheel well adapted to meet the most severe modern operating requirements.

Another advantage claimed is ability to change readily the wheel design, weight, metal composition, or heat treatment, as necessitated by any special service conditions. Once established, all phases of melting and heat treating are automatically controlled as regards time and temperature to assure maximum uniformity in physical properties of all wheels produced.

Special Graphite Mold

The graphite wheel mold, made after considerable experiment by the Great Lakes Carbon Company, consists of two pieces of especially prepared graphite 42 in. in diameter and 17 in. thick which are contained in an iron flask to prevent mechanical abuse. The wheel contour is cut in the graphite blocks on a King 60-in. vertical boring mill.

Steel for the graphite-mold wheel is melted in a 9-ft. Swindell arc furnace powered with a 3,500-k.v.a. transformer. Any steel that will pour can be used in the Griffin process, but the 0.75-carbon-steel wheel chemistry has a proved service record and it was decided to use this analysis for the first wheels. This steel is melted from selected steel scrap in a basic lining and poured from the furnace at 3,150 deg. F. Complete deoxidization is effected in the ladle using 2 lb. of aluminum and 2 lb. of calcium silicon manganese per ton of steel. One heat

of steel will pour 18 to 20 wheels which have a finished weight of about 600 lb. each. One furnace operating on a three-shift basis can pour 180 wheels in 20 hours. The steel used to date has the following analysis: Carbon .65 to .85; manganese, .60 to .85; silicon, .15 minimum; phosphorous and sulphur, .05 maximum.

Pouring the Steel

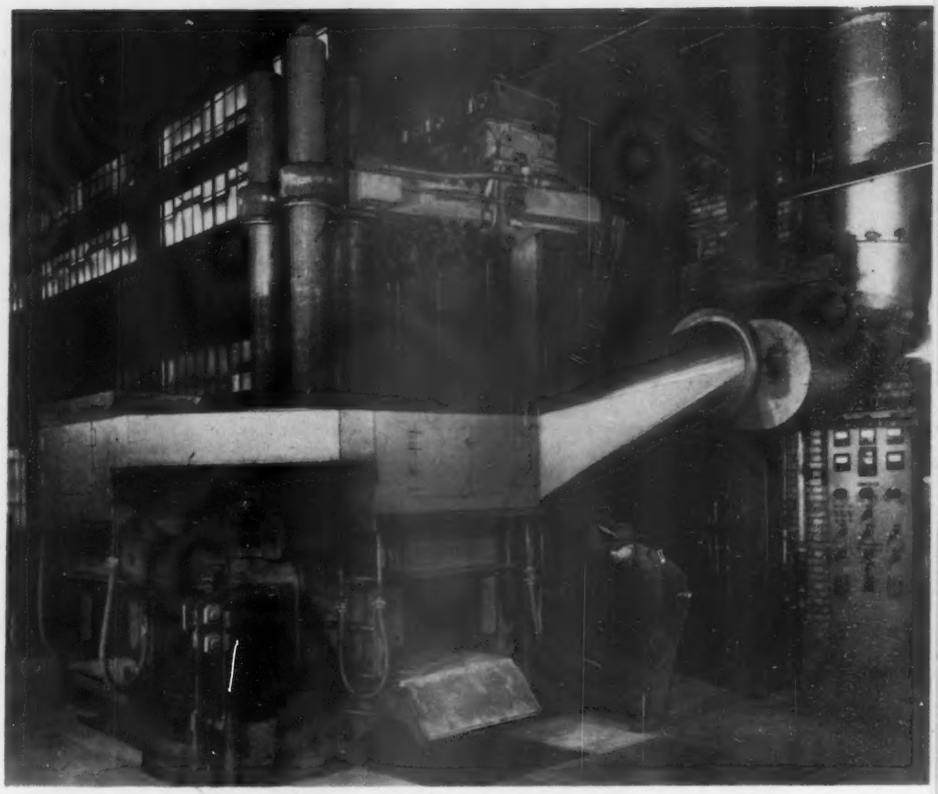
The method employed to pressure-pour into a graphite mold is shown in the schematic drawing. The ladle is placed in a steel tank and the cover, with spout attached, is clamped over the top of the tank. The mold is positioned and clamped over the tank and the metal is forced up into the mold cavity by introducing air pressure into the tank containing the ladle. After the mold is filled, a stopper is pushed through the mold to seal it. The tank is exhausted to atmosphere, permitting the metal in the mold beneath the stopper to run back into the ladle. A new mold is brought into position over the tank by a traveling gantry crane and the process is repeated for the next wheel.

The pouring rate into the mold is controlled by air pressure in the tank. The present practice is to build up the pressure in the tank at a rate of 1 lb. per sec., which raises the metal at the rate of 3 in. per sec. After the metal enters the mold cavity, the pouring rate is 150 lb. of steel per second or a pouring time for the wheel proper of 4 sec.

To obtain a sound wheel, the mold is tilted slightly and three risers are used to feed the tread section. This technique presented a problem which was solved by using one of the new dry-phenolic binders recently developed. This material permits setting cores in the graphite mold and using the residual heat of the mold to bake the core. The graphite mold process would not be practical without this method of setting cores.

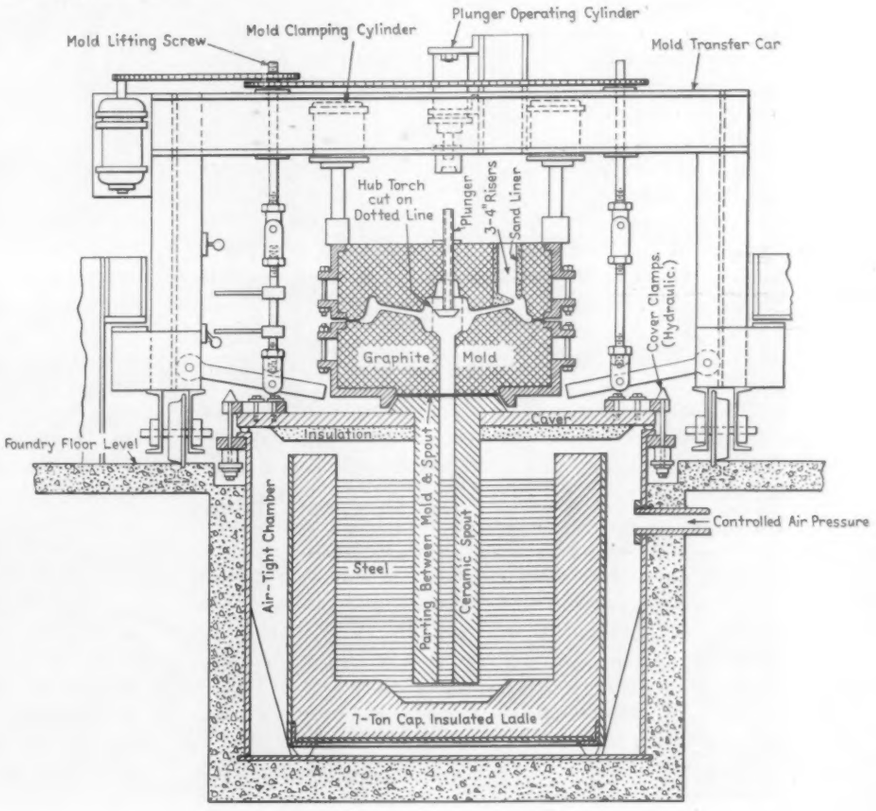
The hub of the wheel is cast solid and cut out with an automatic torch in approximately 2½ min. with a gas consumption of about 20 cu. ft. of oxygen per wheel. The axle opening is always true and the inside wall of the hub is surprisingly smooth.

After cutting the hub, the wheel is approximately 1,000 deg. F., or below the critical temperature. The



SWINDELL BASIC ELECTRIC FURNACE produces the metal for the A.A.R. X-3 cast-steel wheels.

SCHEMATIC ARRANGEMENT for pressure-pouring the Griffin EQS steel wheel in a graphite mold.



CORE SAND (left photo) is poured around the sleeves lowered in the riser holes in the mold. The cores are baked by residual heat in the mold, supplemented from the electric resistance plate at the bottom. Molds moving (right photo) on roller conveyors to the gantry position (right) and returning (left).

wheel is heated in a gas-fired furnace to 1,550 deg. F. and held at this temperature for five hours. It is then removed from the furnace and differentially controlcooled in air to room temperature.

Wheel Design Details

Differences in design of the EQS wheel include large sweeping fillets under the rim and flange to permit the wheel to contract in the mold freely. The plate is thicker to permit faster pouring and for adequate strength. The broad fillets give better heat transfer from the tread to the plate when the wheel is subjected to brake-shoe action and offer better support to the flange and rim. The uniformity of wheel size is indicated by a study of tolerance requirements. Necessary tolerances of EQS wheels are measured in thousandths of an inch and are said not to exceed 0.020 in. in any dimension expect the diameter where a tape-size variation not more than two, or 0.08 in. in diameter, is contemplated.

As a result largely of close physical tolerances, the EQS wheels are exceptionally well balanced. Representative tests in a modern dynamic balancing machine indicated six ounces minimum and 1¾ lb. maximum out of balance at rim diameter, as compared with 10 ounces minimum and 6 lb. maximum out of balance in other types of steel wheels.

Service Tests Under Way

The original 1,000 EQS wheels, now running under controlled service tests, are being checked periodically for visual defects and to obtain data on relative wear in comparison with other wheels on the same cars. Service performance to date is said to be even better than anticipated, with little evidence of wear.

EQS wheels have been subjected to ten drag tests at the University of Illinois laboratory, the surface speed of the car wheels being held constant at 45 m.p.h. The standard A.A.R. passenger-car shoes, all from one heat, were applied with a force of 3,000 lb. per shoe for 50 sec. out of each minute for a total duration of 30 min. for each drag test.

The wheels were stop-tested from an initial surface speed of approximately 105 m.p.h. with clasp brakes using a force of 20,000 lb. on each of two shoes. The flywheel of the testing machine has a mass equivalent to a rail wheel load of approximately 24,000 lb. The energy dissipated for each stop from a speed of 105 m.p.h. was slightly greater than 9,000,000 ft. lb. Each wheel was subjected to 50 complete stops.

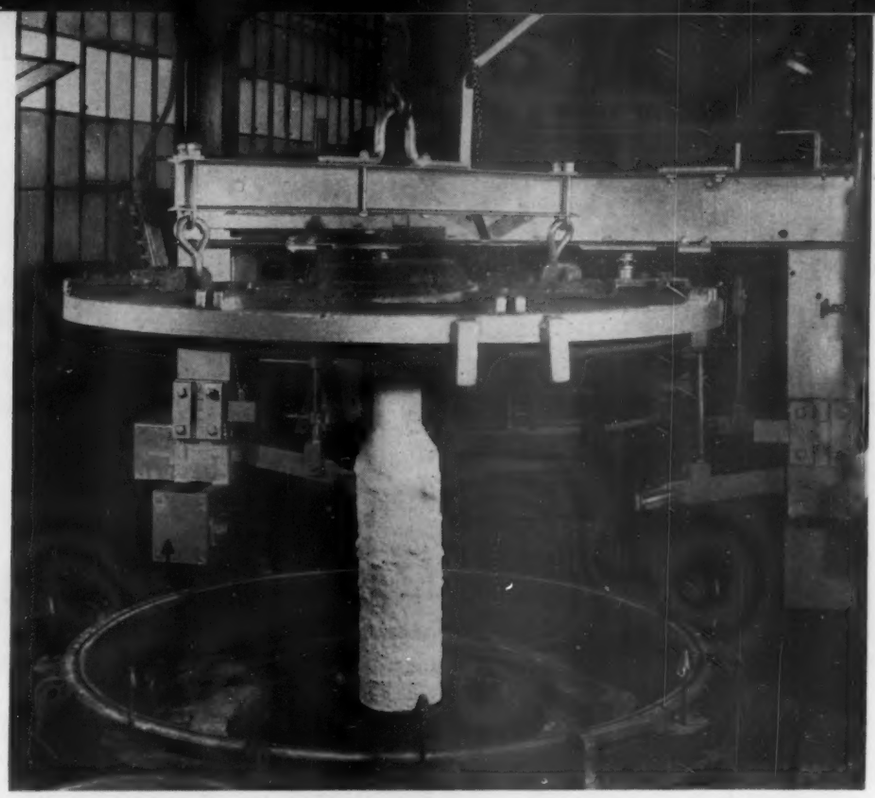
The tests imposed upon these wheels were considerably more severe than encountered in any normal freight service, being the equivalent of passenger-car wheel tests. The clasp shoes used increased the heat input to the wheel and in the case of the drag test, the cycling of the brakes permitted the shoes to last longer than if brake pressure were applied continually.

Static Plate Tests

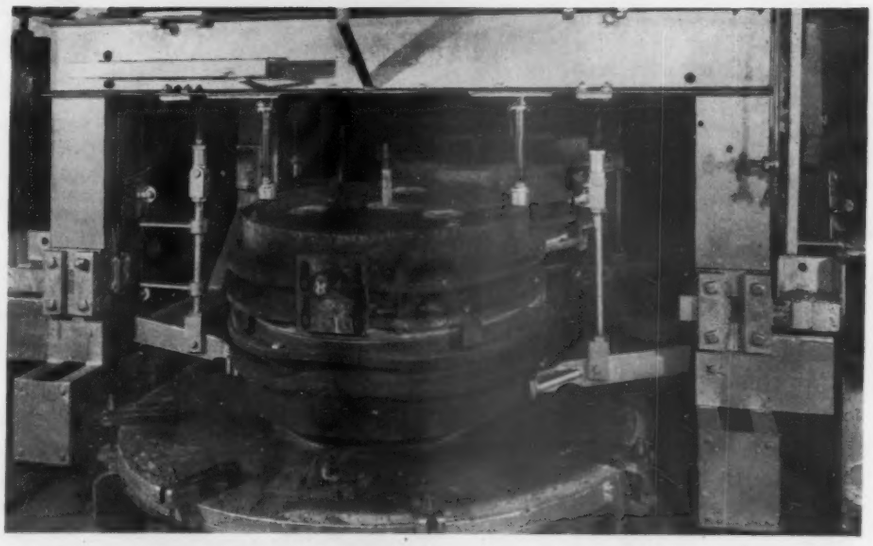
A series of EQS wheels has been subjected to static plate tests, both front hub and back hub in a 1,000,000-lb. test machine and demonstrated more than adequate static plate strength for any service. Some of these wheels were given severe static and dynamic rim tests in a special machine without breaking or showing any signs of distress. In static flange tests, individual wheels are said to have supported loads in excess of 500,000 lb.

EQS wheels have also been subjected to drop and thermal tests without failure, the former including 200 blows of the 250-lb. tup raised to its limit of travel and dropped 20 ft. Wheels, subjected to stress analysis before and after brake shoe testing, were said to show no residual or built-up internal stresses of a magnitude likely to cause failure. Wheels examined periodically by the Cobalt-60 radiographic inspection have proved to be sound at all points in the section and the uniformity of the graphite mold method apparently makes checking all wheels by this process unnecessary.

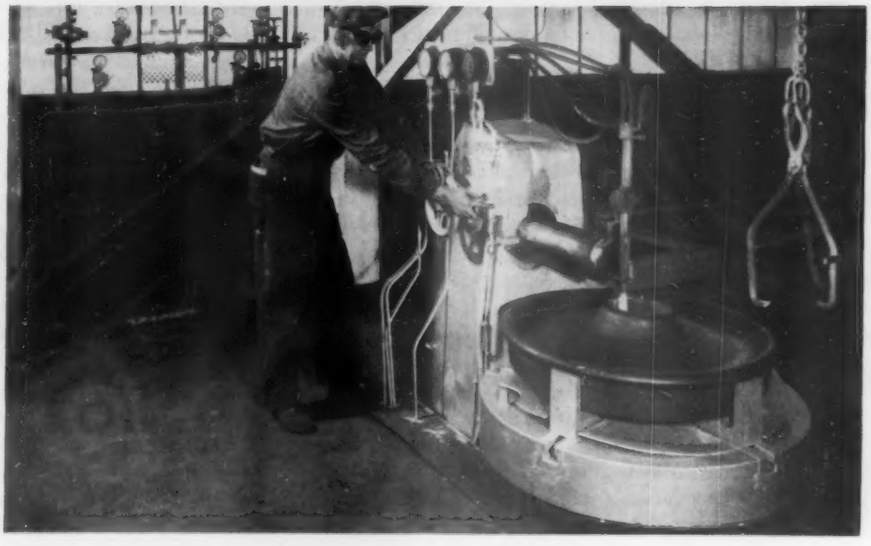
All Griffin EQS wheels which go into railroad service are completely shot blasted and magnetic-particle tested using the Magnaglo method to assure sound wheels free of hot tears and cracks. The exceptionally smooth and clean appearance of the wheels is attributed to their manufacture in accurately machined graphite molds plus shot blasting which removes scale and brightens exterior surfaces. All features of the new Griffin EQS wheel development are covered by patent applications in the United States and Canada.



THE LADLE in the tank with the cover and pouring tube ready to be lowered in place.



THE MOLD brought to pouring position and clamped in place by air cylinders on the gantry crane.



THE AUTOMATIC hub cutting operation in a finished EQS wheel.

PRINCIPAL ROLE-PLAYERS at the sixth annual dinner of the F.R.P.: (left to right) Senator Charles W. Tobey, "man of the week"; Robert R. Young, founder and chairman of the federation; Mrs. Denny Griswold, editor and publisher of Public Relations News, (recipient of a special Public Relations Award); Frederic C. Dumaine, Jr., president of the New Haven (holding the Annual Passenger Service Award); James G. Lyne, editor of *Railway Age* (presented the Journalism Award); and Walter J. Tuohy, president of the C&O, who made the presentations.

AT F. R. P. DINNER . . .

Tobey Says Seek "Square Deal"

Senator's bid, "Come tell us what you want"—Young predicts New York Central will be nucleus of large eastern merger, headquartered in Cleveland —New Haven gets passenger service award

The man who has charge of the Senate's legislative program for transportation says to the railroads: "Come and ask for a square deal. We will give it to you."

The speaker was Senator Charles W. Tobey, chairman of the Senate's Interstate and Foreign Commerce Committee. The place: the sixth annual dinner of the Federation for Railway Progress, at the Hotel Cleveland in Cleveland, on March 27.

Revealed also at the dinner was a "promise" by Robert R. Young, founder and chairman of the federation, and chairman of the board of the Chesapeake & Ohio, that "in ten years . . . Cleveland will be the headquarters of the biggest and most constructive railroad empire in the United States." [In a press conference the next day, Mr. Young developed this idea by expressing confidence in a successful conclusion to his current efforts to gain a voice in the management of the New York Central and to his long-range program for railroad consolidation.]

Railway Age *Editor Gets Award*

James G. Lyne, editor of *Railway Age* and president of the Simmons-Boardman Publishing Corporation, was presented the federation's annual journalism award for 1953. In making it, President Walter J. Tuohy of the C&O referred to the recipient's "outstanding service to the railroad industry by his interpretation of news, sympathetic guidance, staunch support and constructive criticism through the editorial pages of *Railway Age*."

In accepting the award for "outstanding achievement in progressive passenger service" for the New Haven (which road was also the recipient of the award in its first year of bestowal), President Frederic C. Dumaine, Jr., attributed the road's winning again "to our 20,000 employees and Charlie Williams" (general passenger traffic manager). A special award for public relations went to Mrs. Denny Griswold, editor and publisher of Public Relations News.

Senator Tobey's expression of welcome for a railroad legislative program took form in answers to questions by a panel of three Cleveland newspapermen in a "meet the press" presentation, in which the New Hampshire Republican was "Man of the Week." The senator's confident, blunt and concise answers, delivered in a rapid-fire style, covered a wide range of topics, viz.—

Railroad labor: Senator Tobey favors amending the Railway Labor Act in important ways. He is dead set against "featherbedding"—"Tell the unions where to get off and kick them out [of featherbedding schemes], say I."

Passenger Service: "The great objective of the railroads should be to cut down that passenger deficit." He would urge a more liberal service abandonment policy—"You can't squeeze blood out of a stone; the railroads run as a business, not for charity." But, as a believer in states' rights, he would not give the Interstate Commerce Commission authority of decision over matters affecting intrastate service exclusively.

Railway Express: Q.—"Should railroads be made to carry express matter at a loss?" *A.*—"No." The senator went on to say that, "within 30 days," his committee would begin hearings on a comprehensive review of the Railway Express Agency—with the purpose of bringing out "what the railroads are paying and what they are getting."

Expedited Depreciation: "The railroads ought to be given every break on saving taxes, considering their usefulness and their condition."

Proposed Legislation: The senator hasn't "had time to see" the railroads' five-point program, but says he invites a railroad program. On rate of return, he wouldn't be definite about the six per cent figure, but avers, "the usefulness of the railroads in war and peace demands a square deal." He favors I.C.C. action to grant the railroads adequate earnings and he added that he is cooperating with Senators Bricker and Johnson in preparing constructive transportation legislation.

Faster Action on Rate Cases: Asked whether the railroads ought to be permitted to raise general rate levels within 30 days after filing, the senator failed to answer "yes" or "no," but declared instead: "The I.C.C. needs more hormones, more help and more money; I believe in them."

I.C.C. Status: Q.—"Will the I.C.C. adopt the Wolf management report?" *A.*—"It is a good, constructive report. They will adopt it if they're wise."

I.C.C.'s Handling of Railroad Reorganizations: "About time they woke up; the record is damnable. Here again, I'd inject those hormones."

Additional Safety Legislation: Proposed law to give I.C.C. authority over safety and communications devices on the railroads "will go through; let any railroad oppose at its own peril."

Highway Building: Mr. Tobey believes in a large road-building program, but wants tolls. "Put 'em on a paying basis; let the traveling public pay."

Truck Tariffs: Q.—"Would you compel motor carriers and water lines to publish all rates?" *A.*—"Yes. All possible publicity. Why not?"

St. Lawrence Seaway: "I'm 100 per cent for it. The railroads are very shortsighted in opposing it." [Following a few "boos" in the audience, he added, "This is a free country, isn't it?"]

The questioners of Senator Tobey were R. E. Cochran, McGraw Hill publications; M. J. Saada, Wall Street Journal; and R. M. Seltzer, Cleveland Press. Ron Cochran of Columbia Broadcasting System was moderator.

Railroads and Schools

Taking the theme, "The Railroads and Education," Mr. Young commented on the low percentage of college graduates in the employ of railroads as compared to other large businesses. "It is paradoxical, is it not, that of the two lowest compensated industries [education and railroading], one is the worst educated and the other is the best educated? If nothing else, it suggests that we ought to get together and perhaps gang up for a better shuffle."

Employment of college graduates by the railroads, Mr. Young stated, "is a situation that promises to get worse rather than better, for the railroads are not so much as included in the average college graduate's thinking when he seeks a job—except as a place to avoid.

"Education can point out with grim satisfaction that this industry which has supported college graduates the least is also at the foot of the class in return to security holders as well as in compensation to its executives."

Mr. Young said that the railroads have averaged only a 4 per cent return on their investment over the past ten years, while their top executives earn less than half their counterpart in other industries. Yet, he said, educators are even more poorly paid.

Nevertheless, the federation chairman has high hopes of closer relations between the railroads and the colleges in the future. The first point of railroad-education cooperation which he suggested was an expansion of the present "co-op" system now practiced by some colleges whereby their students divide their time in three, four or six-month relays between study on the campus and work in industry. He proposed that business pay the cost of more such student-worker relays.

"If we oldsters in the railroad business would only surround ourselves with such youngsters and listen to them, and promote them," he said, "we could build an atmosphere and an industry that would quickly attract the best brains in the country. Instead, I am chagrined to report that, out of 350 college graduates hired by the C&O since 1949, only 43 per cent are still with us."

Interchange of Teachers and Executives

Mr. Young also proposed an interchange of teachers and business executives, asserting that it would help to "wipe out today's mutual distrust" and that students would gain in "more experienced and practical professors and employees in more understanding and better-rounded bosses." Other proposals which he outlined were special courses for older executives in business and an "educational clearing house for the interchange of the more advanced ideas and methods used on all our 130 great railroads in all departments."

The C&O chairman criticized his industry's progress in the application of scientific principles. "When I was a youth in General Motors," he said, "we laughed at the railroads for their high wheels, the cumbersome weight of their passenger cars, their hot boxes, their ice boxes, their custom as opposed to quantity purchasing practices. We were fortunate in having directors who were owners, progressive and far-seeing.

"That was 30 long years ago, and over there in Detroit they still laugh at us backward railroad directors for the very same thing."

Thomas J. Deegan, Jr., president of F.R.P., and vice-president of the C&O, reminded the audience—made up of almost 850 railroaders, their customers and civic and labor officers—that Cleveland was the "home town" of the federation when it was created six years ago.

LAW CHANGE NEEDED BECAUSE . . .

Taxes Shackle Private Capital

By E. L. TENNYSON
Utility Commissioner
Youngstown, Ohio

The railroad industry has seven or eight inequities in the treatment of railroads by government that it is trying to persuade Congress to correct. But hasn't the industry either overlooked or failed to come to grips with the most deadening factor of all, the federal income tax? Unless the burden of the 52 per cent income tax is lifted from the railroad industry, it can never modernize *and* compete. Don't forget the fact that most industries turn over their capital several times a year, whereas railroads require several years to turn it over once. This means that while A & P store customers have 2 per cent added to purchase prices by the income tax, a prosperous railroad will have to add 20 to 40 per cent to its selling price. Highway carriers do not face the same situation.

The only large all-new (not a relocation) railway construction job in the United States this year is in Cleveland, Ohio, where a new two-track electric railway is being built from East Cleveland to Lakewood (13 miles) via Cleveland Union Terminal. It is significant that this project is not capable of accomplishment by private enterprise because of the income tax. The need for this new railway can be seen in the time it will save.

The accompanying table of cost estimates shows the economic advantage (saving in cost per ride as well as time) of this railway project, and the economic impossibility of accomplishment by private capital. It would require rates 59½ per cent higher than otherwise to pay the 52 per cent income tax. Look at the difference in income taxes, rail compared to bus. It should be obvious that any investor would prefer the bus where income taxes are only 6 per cent of total costs, to rail with a 28 per cent slice. Any delay in rate adjustments hurts only the investors in the railway, because the corporation can meet other expenses easily, but the bus must get prompt treatment or the public will lose its service. Trucks would be analogous to buses. At the present time, with railway capital coming so largely from earnings, there is no use talking about tax exemptions by bond financing.

To correct this situation, may I suggest that a change in the tax law is needed to substitute for the 52 per cent income tax a levy of 5 per cent of gross revenue? The power industry faces the same problem in fighting public power and should assist in pressing a demand for this change. This, in my opinion, is a more important factor in the adverse situation of the railroads than all other factors combined.

May I also extend a word of caution to managements with debt reduction on their minds? If 5 per cent bonds are retired in favor of increased equity for the stockholders, it will mean that a 12 per cent return before taxes will be required in substitution for the 5 per cent debt. Of course, in profitless times, things will be safer, but the same safety can be achieved with income bonds.

EFFECT OF FEDERAL INCOME TAX ON PUBLIC TRANSPORTATION COSTS, 1953

Author's Estimated Analysis of the Economic Situation of New Commuter Railway Under Construction Through Cleveland Union Terminal

	CORP. RAIL	SOCIAL RAIL	SOCIAL BUS	CORP. BUS
Estimated Annual Passengers	18,000,000	18,000,000	18,000,000	18,000,000
ESTIMATED EXPENSE (known unit costs)				
Maintenance of Way & Structures	$130,000	$130,000	0	0
Maintenance of Equipment	210,000	210,000	$840,000	$840,000
Power or fuel	210,000	210,000	500,000	500,000
Transportation crew and expense	560,000	560,000	2,240,000	2,240,000
Station Agents	240,000	240,000	0	0
General (includes damage claims)	210,000	210,000	1,000,000	1,000,000
Out-of-pocket operating costs	$1,560,000	$1,560,000	$4,580,000	$4,580,000
Out-of-pocket cost per passenger	8.7¢	8.7¢	25.5¢	25.5¢
Depreciation (0-land, 10% bus, 4% rail cars, 2½% track)	$500,000	$500,000	$560,000	$560,000
True operating expense	$2,060,000	$2,060,000	$5,140,000	$5,140,000
True operating expense per passenger	11.5¢	11.5¢	28.5¢	28.5¢
Return on investment 4%-6%	$1,200,000	$800,000	$224,000	$336,000
52% income tax ahead of return	1,300,000	0	0	364,000
TOTAL COST TO PASSENGERS	$4,560,000	$2,860,000	$5,364,000	$5,840,000
Total cost per passenger	25.4¢	15.9¢	29.8¢	32.4¢
Penalty on private enterprise	$1,700,000			$476,000
Penalty per passenger	9.5¢			2.6¢
Additional 15% excise tax if service were 40% longer or more	$683,000		unknown	$875,000

NOTE: The high cost of bus service in this case is caused by smaller seating capacity per vehicle and much slower schedule speed over the route under construction. No attempt has been made to vary the level of traffic in proportion to time and price variables.

Invest Now to Reduce Future Maintenance Costs

Commonwealth Box-Express Car Truck
with clasp brakes

Commonwealth Box-Express Car Truck
with single shoe brakes

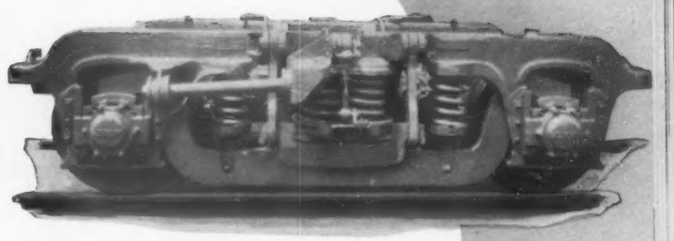
Apply these COMMONWEALTH TRUCKS

In the interest of long range economy—in lowering maintenance expense in future years—now is the time to modernize existing equipment with COMMONWEALTH Trucks of latest designs. Several leading railroads are utilizing the new COMMONWEALTH Box-Express Car Trucks and Outside Swing Hanger Type Passenger Car Trucks for better performance and operating economy.

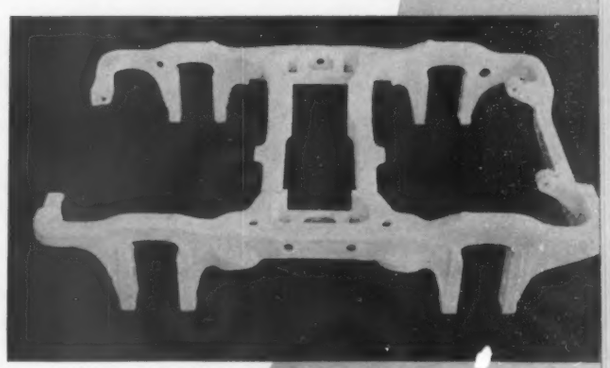
COMMONWEALTH Box-Express Car Trucks are especially designed for freight cars operating in passenger train service. Fully equalized and with swing bolsters, these trucks provide smooth, safe riding under light or loaded cars, protecting car contents and minimizing damage claims. Upkeep costs of trucks, car body and track structure are materially reduced.

COMMONWEALTH Passenger Car Trucks with outside hanger spring suspension reduce car body roll and assure smooth, comfortable riding at all speeds.

All COMMONWEALTH Trucks have one-piece cast steel frames and bolsters which provide great strength, long service life and a minimum of maintenance expense.



Commonwealth Outside Swing Hanger Type
Passenger Car Truck



One-piece Cast Steel Frame for
Box-Express Car Truck

To reduce future costs, apply Commonwealth Trucks now.

GENERAL STEEL CASTINGS

GRANITE CITY, ILL. • EDDYSTONE, PA.

Streamlite HAIRINSUL

OUTLASTS THE LIFE OF THE CAR

That new refrigerator car coming out of the shop will someday wear out, be sold for scrap or be junked, but the Streamlite Hairinsul originally used in the car can be salvaged to be used again. *It actually outlasts the life of the car!*

Streamlite Hairinsul's high insulating efficiency remains the same year in and year out. Records show where all-hair insulation removed from refrigerator cars after 20 years or more of service, is in like new condition. It does not deteriorate with age. Its salvage value is high.

At right are some additional reasons why Streamlite Hairinsul is the leading car insulation. Write for complete data.

LOW CONDUCTIVITY. Thoroughly washed and sterilized, all-hair heat barrier. Rated conductivity — .25 btu per square foot, per hour, per degree F., per inch thick.

LIGHT WEIGHT. Advanced processing methods reduce weight of STREAMLITE HAIRINSUL by 40%.

PERMANENT. Does not disintegrate when wet, resists absorption. Will not shake down, is fire-resistant and odorless.

EASY TO INSTALL. Blankets may be applied to car wall in one piece, from sill to plate and from one side door to the other. Self-supporting in wall sections between fasteners.

COMPLETE RANGE. STREAMLITE HAIRINSUL is available ½" to 4" thick, up to 127" wide. Stitched on 5" or 10" centers between two layers of reinforced asphalt laminated paper. Other weights and facings are available.

HIGH SALVAGE VALUE. The all-hair content does not deteriorate with age; therefore has high salvage value. No other type of insulation offers a comparable saving.

Streamlite HAIRINSUL

The Standard By Which All Other Refrigerator Car Insulations Are Judged

AMERICAN HAIR & FELT CO.

Dept. H34, Merchandise Mart, Chicago 54, Ill.

In Congress

(Continued from page 18)

H.R.4355, to amend section 221(c) of the I.C. Act "in order to clarify certain requirements relating to the designation of persons upon whom process may be served" (O'Hara of Minnesota).

People in the News

Steel Founders' Group Presents Annual Awards

National medal awards for outstanding leadership in the steel castings industry were announced recently by F. Kermit Donaldson, executive vice-president of the Steel Founders' Society of America, during the society's annual meeting in Chicago.

Award of the society's national technical and operating gold medal for 1952 was made to G. A. Lillieqvist, research director and chief metallurgist of American Steel Foundries. John A. Rassenfoss, A.S.F. assistant research director, received the annual Steel Foundry Facts award for excellence of material published in the society's technical publications. Second prize in the same category was shared by C. B. Jenni, chief metallurgist, General Steel Castings Corporation, and K. S. Howard, who retired as a G.S.C. vice-president in 1952 and is now assistant vice-president of the Canadian Car & Foundry Co.

F. V. du Pont Succeeds T. H. MacDonald

Francis V. du Pont has been appointed commissioner of the Bureau of Public Roads, U. S. Department of Commerce, succeeding Thomas H. MacDonald. The appointment was made by Secretary of Commerce Weeks, "with the approval of President Eisenhower."

Mr. du Pont, who took over on April 1, served from 1922 to 1949 as a member of the Delaware State Highway Department, including 23 years as chairman. He is in his 59th year.

Mr. MacDonald had been the federal roads commissioner for nearly 34 years. He is in his 72nd year.

Rothschild Takes Office As Chairman of I.W.C.

Louis S. Rothschild of Kansas City, Mo., was sworn in as chairman of the Inland Waterways Corporation on March 25. Mr. Rothschild, president and treasurer of Rothschild & Sons, replaces South Trimble, Jr., in the I.W.C. post.

Mr. Rothschild was born March 29, 1900. He is a graduate of Yale University, and has been active in civic affairs at Kansas City. The retail business which he heads was started in 1855. The firm operates stores in Missouri, Kansas and Oklahoma.

PASSENGER SERVICE of the Chicago & North Western will be examined from a woman's point of view by Mrs. Margaret Yarwood, newly appointed special representative, who has been with the C&NW in other capacities for 17 years. Her duties will include working with conductors, dining car stewards, waiters, porters, chefs and others who deal with the public aboard trains, and to recommend changes, improvements or refinements of service that will benefit passengers.

R. P. Hart Receives Engineering Award

Roy P. Hart, chief operating officer of the Missouri Pacific, has received a Missouri Honor Award for distinguished service in engineering. Presentation of the award was made at a special March 21 convocation in Columbia, Mo., climaxing Engineers' Week at the University of Missouri.

SCHOOL TRAIN DELUXE

One of the largest school train movements recently reported was handled by the Milwaukee from Walworth, Wis., to Chicago March 24.

The move involved 1,425 school children from all points in Walworth county, who rode in a diesel-powered train of 20 lightweight deluxe coaches for the 74-mile trip. The return trip was made in the same train after the kids spent the day touring museums and seeing other sights of the big city. To handle the group, the road provided five coach porters and two passenger agents. The trip was "a complete success"—right down to the fact that not a single lunch box was misplaced.

A similar move—involving school children of the Janesville, Wis., area—is scheduled for April 17.

Education

Illinois Central Plans Seminar for Management

Approximately 800 Illinois Central general and division officers, and other key men with management responsibilities, will meet in Chicago on April 13 and 14 when the company will conduct a management seminar. The course is designed to clarify details of the road's operation and to provide greater understanding of its policies and objectives.

In the words of IC President Wayne A. Johnston, the course will "give men with management responsibilities from over the entire railroad and off-line offices an opportunity to become better acquainted with each other and the work we all do. We want every person in management to share the story of how far we have come; where we stand today; and what lies ahead of us."

Mr. Johnston will serve on the "faculty" of the seminar with a considerable number of other top officers of the road. Dr. Norman Vincent Peale, minister of Marble Collegiate Church, New York, will be guest speaker at a dinner on April 13.

Public Relations

DL&W Finds Management-Labor Meetings Helpful

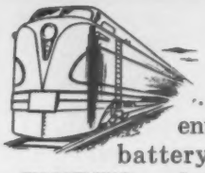
President Perry M. Shoemaker, of the Delaware, Lackawanna & Western, on March 24, gave a luncheon at Scranton, Pa., at which the principal guests were grand lodge officers, general chairmen and local chairmen of the 23 labor organizations on the railroads. The purpose of the meeting was review and discussion of the company's 1952 annual report—and was a repetition on a greatly extended scale of a meeting for the same purpose which Mr. Shoemaker initiated last year, when he was vice-president, operations.

Those in attendance totaled 211—of whom 148 were representatives of the labor organizations—and included also the principal officers of the railroad. The review of the 1952 report to stockholders, copies of which were distributed, and exposition of the railroad's problems by the president, occupied about 1½ hours, after which there was a question period of about an hour. All questions asked were constructive in intent, and no criticism of each other developed on the part of either the labor or management representatives present.

In the course of his discussion of

(Continued on page 96)

INSIDE AN EXIDE-IRONCLAD



Inside . . . where it counts most . . . EXIDE-IRONCLAD is entirely different than any other battery. It's made that way by EXIDE'S exclusive IRONCLAD slotted-tube construction . . . a principle that provides direct operating-hour savings for you.

OF *ALL* BATTERIES, ONLY EXIDE-IRONCLADS HAVE POWER TUBE POSITIVES

The positive plate is different . . . unique . . . exclusive. It is the most effective retainer of active material yet demonstrated in heavy duty service. Slotted tubes contain the active material. So fine are the slots that, while permitting easy access of electrolyte, they retard the active material from washing out, hold it during repeated cycles of charge-discharge, and the vibration of rough use.

Today's battery-powered equipment is being used harder than ever before. Unless the batteries have internal shock protection they tend to deteriorate under hard usage—both electrical and mechanical. Only Exide-Ironclad has the plus-protection of the tubular positive that can withstand today's more exacting and rigorous heavy-duty battery services.

Your EXIDE sales engineer will give you the factual inside story. See for yourself why *only* an EXIDE-IRONCLAD gives maximum day-after-day service under the most difficult operating conditions . . . *with a minimum of maintenance expense.*

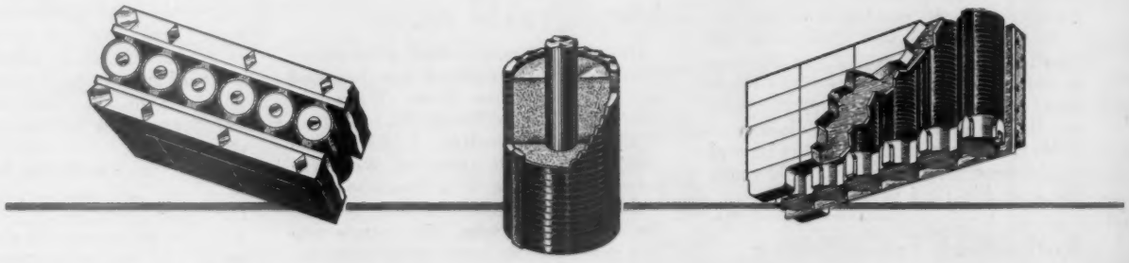
THE ELECTRIC STORAGE BATTERY CO.
Philadelphia 2
Exide Batteries of Canada, Limited, Toronto

1888 . . . DEPENDABLE BATTERIES FOR 65 YEARS . . . 1953

Cross section shows relation of positive plate to separators and negative plate. Note the much greater exposure of active material to electrolyte as compared with that of the usual flat positive plate. This greater exposure makes possible the high power ability and uniform-voltage characteristics of the Exide-Ironclad. The negative plates have been made extra heavy to balance the increased capacity of the power tube positives.

Running through center of each tube is an alloy core which is cast with the heavy top cross bar. These form the sturdy, non-buckling grid. Both core and top bar are made of Exide's new corrosion-resistant Silvium, an alloy of silver, lead and other components, which adds greatly to plate's long life.

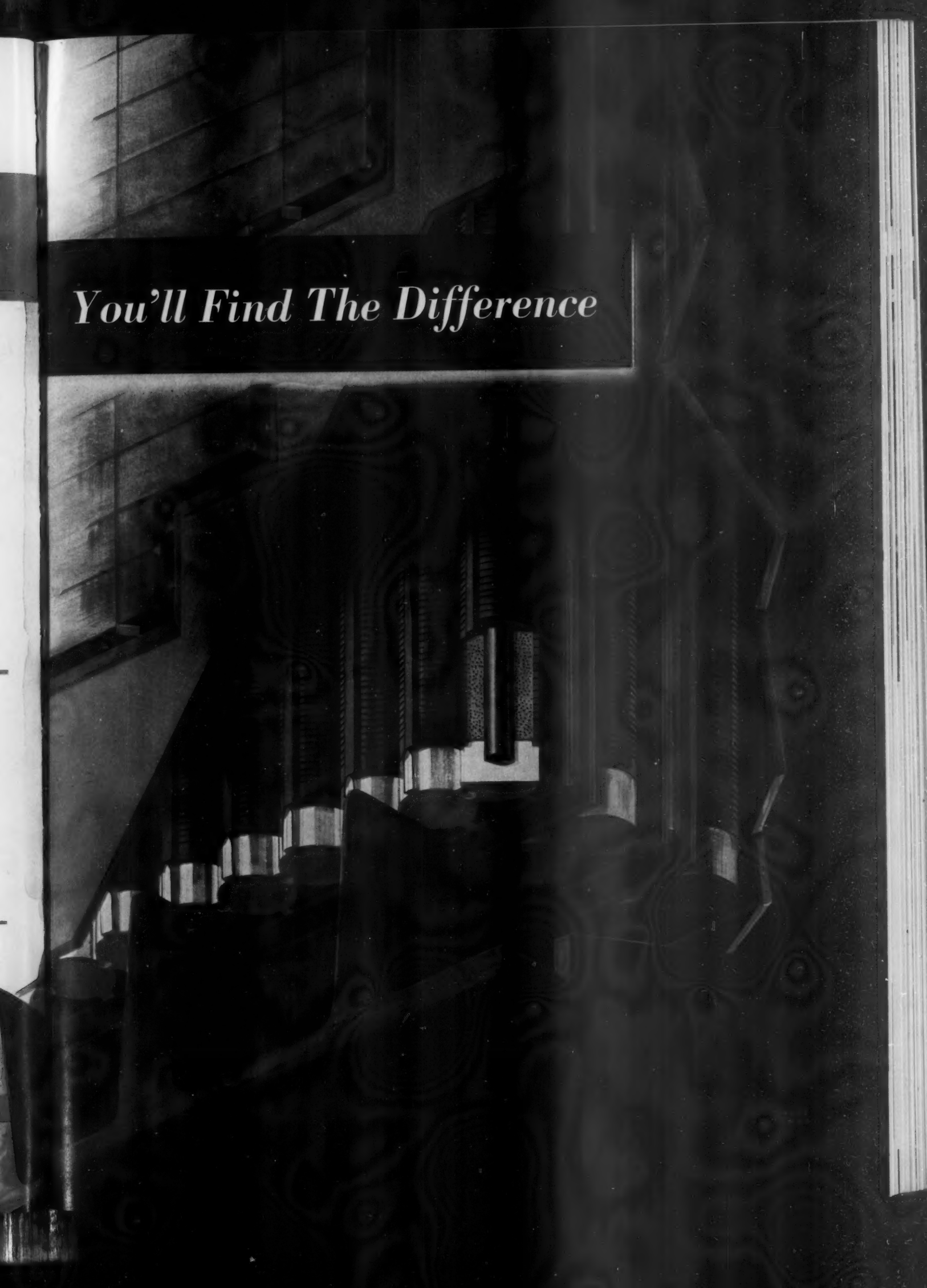
New polyethylene insulating tube sealer of acid-proof, non-corroding plastic fits snugly into bottom of slotted tubes and further reduces loss of active material. Thus more active material remains available, and the high battery capacity is maintained for a longer working life.



Exide-Ironclad

YOUR BEST POWER BUY . . . AT ANY PRICE

"Exide-Ironclad" and "Silvium" *Reg. T.M. U.S. Pat. Off.*


You'll Find The Difference

(Continued from page 93)
the road's situation, Mr. Shoemaker pointed out the great decline in the Lackawanna's anthracite traffic—from more than 2 billion net ton-miles in 1918 to only 575 million in 1952—the cause, of course, being a combination of highway competition plus increasing use of competitive fuels. He drew attention, also, to the decline in ex-lake grain traffic moving to the port of New York and to the reduction in l.c.l. tonnage from 567,000 in 1941 to 193,000 in 1952. He went on to tell of difficulties the Lackawanna faces by reason of operating deficits suffered by its commuter and ferry services, and from the fact that marine and handling expenses on traffic floated in New York harbor exceeded lighterage allowances in 1952 by almost $3,000,000.

On the constructive side—how to meet and overcome these adverse circumstances—Mr. Shoemaker emphasized the importance of realiability of service, both freight, and passenger, with recognition of the fact that, for many patrons, railroad service is no longer their sole recourse. He mentioned further the importance of friendliness and courtesy, more active solicitation of traffic by all employees, more attention to industrial development, and rehabilitation and replacement of equipment to make the road's service thoroughly modern in all its aspects.

In response to questions, Mr. Shoemaker explained in some detail the situation as regards the St. Lawrence Seaway project and the problem of truck competition by reason of use of highways at fees which do not reflect total costs.

Observation of the meeting indicated that those in attendance came to it with open minds, but with many questions—and that they went away with satisfactory answers to their questions. The management believes that the attitude of participants—and the growing interest in the meeting this year, following the smaller scale operation last year—indicates that the project is a helpful one in improving understanding by management and employees of their mutual interests.

Bi-monthly list of Meetings & Conventions begins on page 110.

Organizations

David S. Mackie Heads Traffic Club of Chicago

Davis S. Mackie, freight traffic manager of the New York Central, was installed as president of the Traffic Club of Chicago during the club's annual business meeting and dinner March 26.

Mr. Mackie succeeded Clayton F. Devine, traffic director of the Silica Sand Traffic Association of Illinois. Other officers elected to serve with Mr. Mackie include Evan W. Girton, general traffic manager, Wilson & Co., G. R. Glover, assistant to vice-president, Chicago, Burlington & Quincy, and C. R. Purcell, manager traffic department, Victor Chemical Works, vice-presidents; and R. P. DeGroote, general western freight agent, Luckenbach Steamship Company, treasurer.

Murray Will Address CofC Luncheon Session

Robert B. Murray Jr., Under Secretary of Commerce for Transportation, will be principal speaker at a special transportation luncheon sponsored by the U. S. Chamber of Commerce during its annual meeting in Washington, D. C. The luncheon will be held April 28.

Mr. Murray will discuss "Gearing Government to Transport Needs." The chamber said this would be Mr. Murray's first address in Washington on the responsibility of the executive branch of government in transport matters, as viewed by the new Administration.

A. J. McDonald, vice-president of American Steel Foundries, has been elected president of the **Steel Founders' Society of America.** Mr. McDonald, former chief of the castings section, Iron and Steel Division, National Production Authority, also will serve as chairman of the society's national executive and budget committees.

The **Transportation Club of Peoria** has elected Fred O. Goetz, traffic representative of the Caterpillar Tractor Company, as president. Other officers elected are: Erwin Soloman, warehouse superintendent, Kroger Company, and Ralph A. Barnett, division freight agent, New York Central, vice-presidents; and Leo R. Barnewolt, agent, Peoria Joint Freight Agency, secretary-treasurer. The retiring president is Ray O'Brien, traffic manager, Allied Mills, Inc.

The **Women's Traffic Club of San Francisco** has elected the following officers: President, Grace McAuliffe, B.R. Garcia Traffic Service; vice-president, Louise Latreille, Railway Express Agency; treasurer, Henrietta Schwab, Williams Diamond & Co., and secretary, Muriel White, Owens-Illinois Glass Company.

The **Railroad General Agents Association of Los Angeles** honored its retiring president, C. F. Hallsman, general agent, passenger department, Union Pacific, at its meeting on March 26. Newly elected officers installed at the same meeting are: A. E. Beach, general freight agent, Roscoe, Snyder & Pacific, president; H. H. Knocke, assistant general freight agent, Great Northern, Douglas Seaman, district passenger agent, Pennsylvania, and G. T. Buckley, district freight and passenger agent, Gulf, Mobile & Ohio, vice-presidents; and C. O. Huff, general agent, passenger department, Chicago, Rock Island & Pacific, secretary-treasurer.

The **Transportation Club of San Francisco** has elected as president for the coming year C. J. Harbeke, western traffic manager of the Denver & Rio Grande Western. Other officers elected to serve with Mr. Harbeke are H. C. Hargis, manager, Lyons Van & Storage Co., and A. F. Schumacher, traffic manager, Owens-Illinois Glass Company, vice-presidents; and G. W. Phelps, general agent, Louisville & Nashville, retired, secretary-treasurer.

The **Cincinnati Traffic Club** has elected Walter H. Bachmann, general agent of the Wabash, as president. Other officers for the new year include: J. E. Ellis, traffic manager, Burger Brewing Company, Harry G. Melvin, Jr., general freight agent, Merchant Shippers Association, and Andy L. Kreamelmeyer, general traffic manager, Eagle Picher Company, vice-presidents; H. Fred Oehlschlaeger, general agent, Chicago, Indianapolis & Louisville, secretary; and Edward A. Whiting, traffic manager, S. A. Gerrard Company, treasurer.

Miss Ruth H. Tegtmeyer has been appointed vice-president in charge of research and executive representative in the New England area, for the **Transportation Association of America.** Miss Tegtmeyer recently served as economist and secretary of the National Cooperative Project.

The **Transportation Club of Louisville** has elected W. H. Blackburn, sales manager, Louis Augustus Company, as president; F. E. Cannon, assistant general freight agent, Chicago, Indianapolis & Louisville, as vice-president; and Ray Summers, branch traffic manager, P. Lorillard Company, as secretary-treasurer.

C. W. Meinsen, city passenger agent of the Chicago, Burlington & Quincy at Philadelphia, has been elected president of the **Philadelphia Passenger Association.** Other officers elected include: Vice-presidents, T. F. Stefanski, of the Pennsylvania, and A. W. Kushmore, of the Reading; treasurer, F. W. R. Kirkpatrick, Pennsylvania; sec-

(Continued on page 100)

NO INSIDE GRAIN DOOR

SHIPPERS AND RECEIVERS WELCOME THIS ALL-PURPOSE BULK-LADING DOOR . . .

the answer to the grain door problem

International

THERE'S A NEW PRECISION IN FREIGHT CAR CONSTRUCTION

No one needs to be told the advantages of eliminating the *procurement,* distribution, *installation,* employee hazard, *door post damage,* yard debris and other *countless problems* of the *inside grain door!*

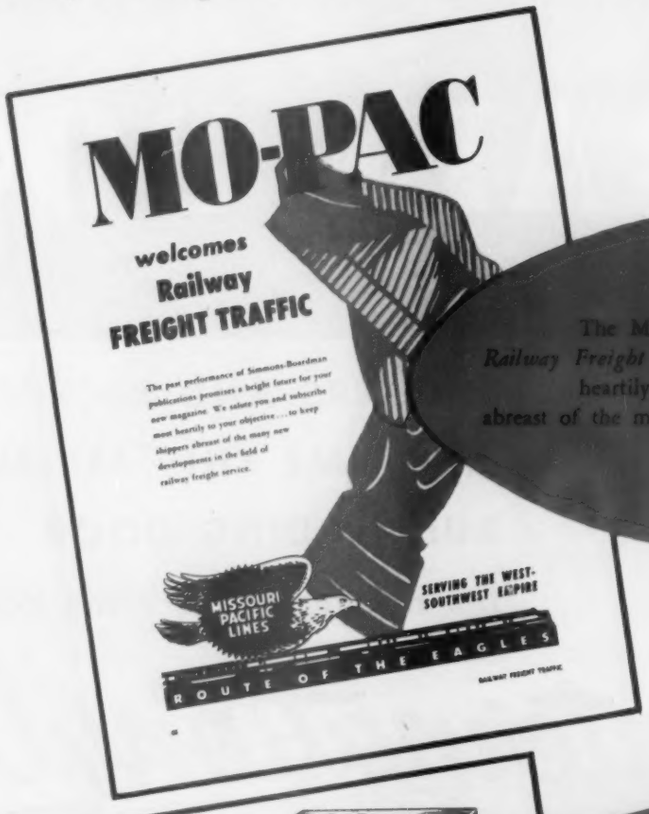
But *beyond* these *actual out-of-pocket* cost and confusion factors, this bulk-lading door (because it is *properly* designed and constructed) not only eliminates *bulging* completely but is engineered to *utilize* as well as *withstand* internal pressure!

And note the *loading* and *inspection* door!

After a hundred years of battling the bulk lading problem, on-the-line tests *prove* that the International All-Purpose, Bulk-Lading Door *is* the answer!

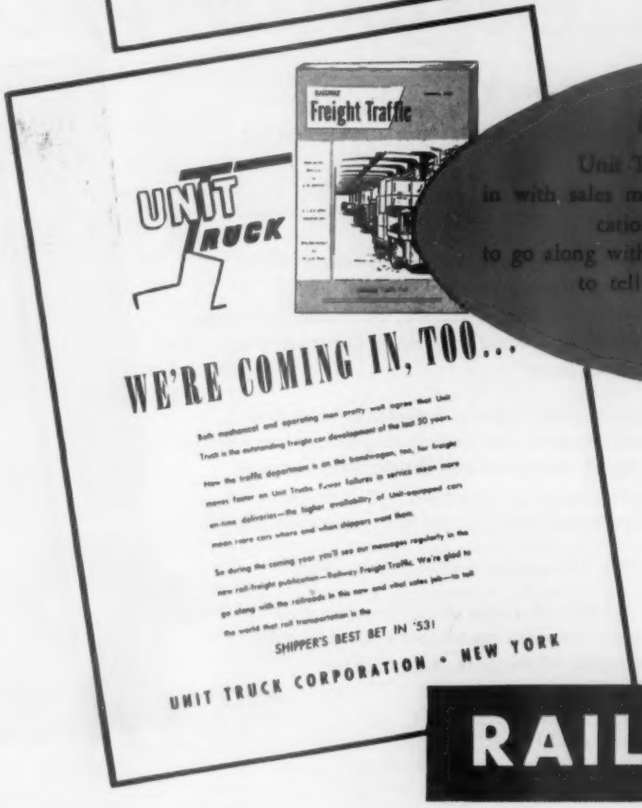
INTERNATIONAL STEEL COMPANY RAILWAY DIVISION
EVANSVILLE 7, INDIANA

Railroads, manufacturers and readers new, expanded service for shippers—


MO-PAC
welcomes
Railway
FREIGHT TRAFFIC
The past performance of Simmons-Boardman publications promises a bright future for your new magazine. We salute you and subscribe most heartily to your objective . . . to keep shippers abreast of the many new developments in the field of railway freight service.
MISSOURI PACIFIC LINES
SERVING THE WEST-SOUTHWEST EMPIRE
ROUTE OF THE EAGLES

RAILROADS

The Missouri Pacific Lines . . . "welcomes *Railway Freight Traffic*. We salute you and subscribe most heartily to your objective . . . to keep shippers abreast of the many new developments in the field of railway freight service."


UNIT TRUCK
Freight Traffic
WE'RE COMING IN, TOO...
Both mechanical and operating men pretty well agree that Unit Truck is the outstanding freight car development of the last 50 years.
Now the traffic department is on the bandwagon, too, for freight moves faster on Unit Trucks. Fewer failures in service mean more on-time deliveries—the higher availability of Unit-equipped cars mean more cars where and when shippers want them.
So during the coming year you'll see our messages regularly in the new rail-freight publication—Railway Freight Traffic. We're glad to go along with the railroads in this new and vital sales job—to tell the world that rail transportation is the
SHIPPER'S BEST BET IN '53!
UNIT TRUCK CORPORATION • NEW YORK

MANUFACTURERS

Unit Truck advises railroads they're "coming in with sales messages regularly in the new rail-freight publication *Railway Freight Traffic*. We're glad to go along with the railroads in this new and vital sales job—to tell the world that rail transportation is the shipper's best bet in '53."

RAILWAY FREIGHT

recognize the value of the completely *Railway Freight Traffic*

You and your organization are to be highly complimented on your accomplishment; I predict that it will become a very much read publication. It should prove to be very popular with both the railroad people and the industrial traffic managers.

General Traffic Manager A Mid-Western Railroad

I like this publication a great deal and I am enclosing a check for a year's subscription, to be sent to me. I am particularly interested in LCL matters. It seems that our carloads all take care of themselves. We are always having trouble on LCL.

Gen. Traffic Manager Retail Chain Store Company

I like its appearance and the selection of material it contains and if you will only maintain the high standard you here established, I predict that the new "baby" is headed for a long and useful career.

Assistant to the President A Southern Railroad

While it is not as voluminous as the *Railway Age*, it is on the whole more interesting to a person like myself because the articles in it deal more or less with problems that are of interest to shippers.

Traffic Department Flour Mills

We think it is instructive, and a great help to the railroads to have such a magazine sent to traffic managers. We represent over 100 shippers all over the United States and from publications such as RAILWAY FREIGHT TRAFFIC we in turn furnish this information to our shippers through our own bulletin service.

Traffic Manager Traffic Management Service

READERS

Shippers and railroaders around the country, in many different fields, are enthusiastically praising the appearance, contents and objectives in the first two issues . . . lauding this expanded service which affords railroads *for the first time* an advertising medium specifically devoted to rail-freight shipping information.

It gives sound and timely information on various topics relating to railway freight transportation. I have heard the remark from other traffic men a number of times, that concerns located in large centers seem to hear a lot about motor truck transportation through their association papers . . . but there seems to be very little information from railway freight channels. I believe that this new magazine will give traffic men information in regard to shipping by railway freight.

Traffic Manager Food Equipt. Mfg. Co.

I find the issue very interesting. We believe that your magazine has a very definite place in its field.

Vice President A North Central Railroad

RAILWAY FREIGHT TRAFFIC was well laid out . . . nicely illustrated . . . interesting stories . . . all of which makes for easy and informative reading. Congratulations.

Dir. Publicity-Advertising A Mid-Western Railroad

RAILWAY FREIGHT TRAFFIC ADVERTISERS

American Car & Foundry Co.
Association of Amer. Railroads
Atchison, Topeka & Santa Fe RR
Atlantic Coast Line RR
Baltimore & Ohio RR
Bessemer & Lake Erie RR
Buffalo Brake Beam Co.
Central Indiana RR
Chesapeake & Ohio Ry Co.
Chicago, Burlington & Quincy
Chicago & Eastern Illinois RR
Chicago & Illinois Midland Ry.
Chicago, Ind. & Louisville
Chicago & North Western Ry.
Chicago, Rock Island & Pacific
Chicago, S. Shore & South Bend
Colson Corporation
Delaware, Lackawanna & W.
Denver & Rio Grande Western
Elgin, Joliet & Eastern Ry.
Erie Railroad
Evans Products Co.
Great Northern Ry.
Illinois Central RR
Illinois Terminal RR
International Steel Co.
Kansas City Southern Lines
Lehigh & Hudson River Ry.
Little Giant Products
Mac Lean-Fogg Lock Nut Co.
Milwaukee Road
Minneapolis & St. Louis Ry.
Missouri-Kansas-Texas Lines
Missouri Pacific Lines
Mobilift Inc.
Nashville, Chatt. & St. Louis
National Carloading
New York Central
Norfolk & Western Ry.
Northern Pacific Ry.
Pennsylvania Railroad
Pittsburgh & West Virginia Ry.
Quanah, Acme & Pacific Ry.
Reading Company
Seaboard Air Lines RR
Seatrain Lines
Signode Steel Strapping Co.
St. Louis-San Francisco
St. Louis Southwestern
Soo Lines RR
Southern Ry.
Superior Car Door Co.
Texas & Pacific Ry.
Timken Roller Bearing Co.
Toledo, Peoria & Western Ry.
Union Pacific RR
Unit Truck Corp.
Wabash RR
Western Pacific

TRAFFIC

a New Simmons-Boardman Publication

30 Church Street, New York 7, N. Y.

(Continued from page 96)
retary, E. H. Hatfield, Atchison, Topeka & Santa Fe; and historian, G. P. Morgan, Baltimore & Ohio.

The following officers were elected at the annual meeting of the **Western Association of Railway Tax Commissioners,** held in Chicago: President, E. H. Browning, assistant general tax agent, New York Central, Cleveland; vice-presidents, C. W. Graham, agent, real estate department, Pennsylvania, Chicago; E. A. McCrary, tax commissioner, Northern Pacific, St. Paul; and H. J. Kraus, assistant real estate and tax commissioner, Missouri Pacific, St. Louis; and secretary-treasurer, M. L. Boydston, tax commissioner, Chicago, Milwaukee, St. Paul & Pacific, Chicago.

Joseph L. Henning, general agent of the Denver & Rio Grande Western, has been elected president of the **Traffic Club of Washington, D. C.,** to succeed F. E. Richter, general agent of the Missouri Pacific. Walter W. Coe, of the Marine Corps' transportation staff, has been elected first vice-president; J. C. Batham, general agent of the Atchison, Topeka & Santa Fe, second vice-president, and E. R. Shellenberger, district freight agent of the Northern Pacific, secretary-treasurer. Mr. Shellenberger succeeded Charles E. Milford, traffic management specialist, General Services Administration.

"Management's Concern with Transportation Problems" will be the subject of a talk by Bert R. Prall, president of Butler Brothers, Chicago, at the general luncheon session of the **Mid-West Shippers Advisory Board** April 16. Members of the **Traffic Club of Chicago** also will be present at the luncheon. The board's meeting —its 102nd—will be held in the Morrison Hotel, Chicago.

Delegates from a number of Latin-American nations, as well as from the lower Mississippi Valley territory will gather in New Orleans April 15 for the **Mississippi Valley World Trade Conference,** sponsored by the **Export Managers Club of New Orleans.** A highlight of the four-day meeting will be a tour of facilities and industries served by the New Orleans Public Belt on April 17. The party will ride a special train provided by the Southern and will hear commentary by Lewis I. Bourgeois, director of commerce of the Board of Commissioners of the Port of New Orleans.

A special luncheon, sponsored by the **Traffic Club of Syracuse** and the **Atlantic States Shippers Advisory Board,** will be held in the Hotel Syracuse, April 16, at 12:30 p.m. Earle J. Machold, president of the Niagara Mohawk Power Corporation, Syracuse, will give an address on "The Common Interests of Regulated Industry."

Discussion of a resolution advocating amendment of Section 22 of the Interstate Commerce Act will highlight the April 9 meeting of the **New York Chapter** of the **National Defense Transportation Association.** The resolution, if adopted, would put the chapter on record as opposed to transportation of persons or property free or at reduced rates, for federal, state or municipal governments, except "to alleviate distress in cases of earthquake, flood, fire, . . . and similar emergencies." The meeting will be held in the Hotel Statler at 7:44 p.m., with Lt. Comm. B. T. Kyle, Jr., as speaker.

HEAVY EXPENDITURES STILL AHEAD FOR THE RAILROADS

"Car ownership of Class I railroads on March 1 was 1,762,200 cars, which is 87,800 short of the ownership goal of 1,850,000. The original program is only about 30 per cent completed. . . .

"The railroads have plans for purchase of additional diesel locomotives, (with) 5,500 units yet to be obtained. There still remains about one-third of this dieselization program to be completed. . . .

"In summary, the overall cost approximates $2,000,000,000. Large sums will also be needed for capital improvement work on roadway and structures to the extent of around $400,000,000 per year."

—From the railroad petition for making permanent the Ex Parte No. 175 rate increase.

Equipment & Supplies

Domestic Equipment Orders Reported in March

Domestic orders for 2,400 freight cars and 97 diesel units were reported by individual purchaser in *Railway Age* in March. No passenger-train car orders were reported. Estimated cost of the freight cars is $17,530,000, and of the diesels, $16,450,000. An accompanying table lists the orders in detail.

During the first three months of 1953, *Railway Age* has reported domestic orders by individual purchaser for 519 diesel units costing an estimated $80,564,000; 6,869 freight-train cars costing an estimated $46,645,000; and 95 passenger-train cars costing an estimated $15,150,000.

DOMESTIC EQUIPMENT ORDERS REPORTED IN MARCH

LOCOMOTIVES

Purchaser	No.	Type	Issue Reported	Builder
CofG	1	1,500-hp. Rd.-Sw.	Mar. 30	Electro-Motive
CB&Q	4	2-unit 4,500-hp. Pass.	Mar. 30	Electro-Motive
	5	2-unit 3,000-hp. Rd.-Sw.	Mar. 30	Electro-Motive
	15	1,500-hp. Rd.-Sw.	Mar. 30	Electro-Motive
IC	35	1,500-hp. Rd.-Sw.	Mar. 30	Electro-Motive
	2	2,250-hp. Passenger	Mar. 30	Electro-Motive
Mississippi Central	10	1,200-hp. Switching	Mar. 30	Electro-Motive
Transportation Corps	6	Diesel units	Mar. 30	Baldwin-Lima-Hamilton
UP	10	1,500-hp. Rd.-Sw.	Mar. 30	Electro-Motive

FREIGHT CARS

CofG	1,000	50-ton Box	Mar. 9	Pullman-Standard
Pacific Fruit Express	200	70-ton Refrigerator	Mar. 16	Co. Shops
S&A	200	40-ton Box	Mar. 9	Pullman-Standard
SP	500	70-ton Gondola	Mar. 30	Amer. Car & Fdy.
Warren Petroleum Corp.	500	Tank	Mar. 16	Amer. Car & Fdy.

"Give Us More Double-Door Cars!"

Pointing out that "lift truck loading and unloading of package and palletized carload freight is rapidly becoming standard procedure, which in most instances requires double-door cars," the Pacific Northwest Shippers Advisory Board, in a resolution passed March 18, asked roads of the territory to increase their supply of such cars.

The resolution, referred to traffic vice-presidents of Pacific Northwest roads, pointed out that lack of suitable equipment is resulting in diversion of traffic to other means of transportation. Shippers of plywood, the board said, have been particularly affected by shortage of wide door cars.

Pete Stallcop, executive secretary of the Pacific Northwest Grain Dealers Association, was elected president of the board for the coming year. Elected to serve with Mr. Stallcop were: N. E. Ottosen, traffic manager, Associated Plywood Mills, Inc., vice-president, and W. C. Cole, traffic consultant, Portland, Ore., executive secretary.

LOCOMOTIVES

The **Detroit, Toledo & Ironton** has ordered two 1,500-hp. general purpose diesel units from the Electro-Motive Division of General Motors Corporation at an estimated cost of $300,200. Delivery is scheduled for this month.

The **Southern Pacific** has ordered 150 diesel units, of which some have been delivered. The remainder are to be delivered by the end of next October. Included in the orders, placed with the American Locomotive-General Electric Companies, the Electro-Motive

Division of General Motors Corporation, the Baldwin-Lima-Hamilton Corporation and Fairbanks, Morse & Co., were 12 2,250-hp. passenger units, 60 1,500-hp. freight units, 19 1,200-hp. switchers, and 59 branch-line freight units (including 19 1,600-hp., 27 1,500-hp., three 1,200-hp. and 10 800-hp. units). Authorization to purchase this equipment was reported in *Railway Age*, February 23, page 61.

Supply Trade

Vapor Heating to Build $2-Million Plant

The Vapor Heating Corporation and its manufacturing subsidiary, the Roth Manufacturing Company, have announced plans for a $2-million factory and office building to be located in the Chicago suburban community of Niles.

Initial plans call for completion of the structure by January 1954. It will contain about 218,000 sq. ft. of floor space, all but 30,000 sq. ft. of which will be devoted to manufacturing. Of brick, steel and concrete construction, the new plant will cover about 10 acres of a 30-acre site. When completed, all the firm's manufacturing operations—train heating systems, steam generators, thermostats and electrical controls—will be transferred from the several sites where they are currently conducted. However, the company will retain offices at 80 East Jackson Boulevard in Chicago.

Lewis T. Gibbs, formerly assistant to manager of sales in the railroad materials division of the United States Steel Corporation, has been appointed assistant manager of sales of the high strength steel division. Mr. Gibbs joined U.S.S. in 1936 as a metallurgical observer. He was assigned to the Buffalo, N. Y., sales office in 1938 and later worked at Hartford, Conn., and Baltimore. He was transferred to Pittsburgh in 1946 as a product representative in railroad sales.

Eads Johnson, Jr., formerly executive vice-president of the Southern Wheel division of the **American Brake Shoe Company**, has been promoted to president of the division,

Eads Johnson, Jr.

to succeed **William F. Cutler**, who has retired after 44 years of service.

Mr. Johnson joined the company in 1934 as an apprentice in the Brake Shoe & Castings division. He was appointed sales representative in 1935 and continued in that capacity until

William F. Cutler

1949, when he was appointed assistant vice-president of the wheel division. Mr. Cutler joined Brake Shoe in 1909. He was elected a director in 1913 and president of the Southern Wheel division in 1918. Mr. Cutler will continue as a director.

The **Rail-Trailer Company** and the **Van-Car Corporation** have moved into new quarters at 122 South Michigan avenue, Chicago 3.

The **Benjamin Electric Manufacturing Company**, Des Plaines, Ill., has purchased certain assets of the **Leader Electric Company**, Chicago. The Leader Line will be manufactured and sold by the Leader division of Benjamin Electric; expansion of manufacturing facilities at the Benjamin plant in Des Plaines is being undertaken immediately.

John W. Schoen has been appointed vice-president and general sales manager of **R. G. LeTourneau, Inc.**, to replace **R. E. McCluskey**, who recently resigned. Mr. Schoen will direct the company's sales division, as well as other related departments.

Orr & Sembower, Inc., Reading, Pa., has relocated its midwestern district office from Cleveland to 4809 North Claremont avenue, Chicago. **R. C. Currie** is district manager.

OBITUARY

The Inland Steel Company has announced that officials of the firm "have come to the reluctant conclusion" that **John J. Davis, Jr.**, manager of sales for the company's railroad, pig iron and chemical division, and his wife, must be presumed lost as a result of their mysterious disappearance at sea in the Bahama Islands the week before last. "The elapsed time and the discovery of parts of the sailing dinghy in which they set out from the Island of Eleuthera on March 17," the Inland statement said, "make it appear that the couple drowned at sea."

Financial

Wyer Assails L.I. Transit Authority

The Long Island Transit Authority's charge that William Wyer, trustee of the Long Island, is not cooperating with it (*Railway Age*, March 23, page 125), "arises from my unwillingness to bow to its wishes when this would be in violation of the laws governing my trusteeship," Mr. Wyer said in a recent statement. The authority, he pointed out, "has no duties or responsibilities under any of these laws and its recommendation with respect to rehabilitation would, in my opinion, result in misapplication of the funds of the estate."

"It is to be hoped," Mr. Wyer said, "that the Public Service Commission will not consider the authority's unfounded charges to be worthy of an extensive and costly investigation, but if the commission does institute such an investigation I am fully prepared to refute such charges. In this connection, it is interesting to note that the authority, which has previously urged a speedy reorganization, now urges a lengthy and involved proceeding which would in all probability result in further delays in reorganization."

New York, Susquehanna & Western.—*Reorganization.*—Comple-

MAKING A 10,000 MILE RUN...

STANDING STILL!

New locomotive-type test engine helps Socony-Vacuum continually improve your Diesel lubricating oils!

With this special engine, Socony-Vacuum engineers can test—in the laboratory—the performance of lubricating oils under the varying loads, speeds and temperatures encountered by Diesel locomotives in actual runs. This is just one of the many ways Socony-Vacuum cooperates with operators and engine builders to help solve today's Diesel operating problems.

Experience from such cooperative research efforts—plus exhaustive field evaluations—has produced Diesel lubricating oils that keep engines clean—keep costs down . . . oils which are proving eminently successful on many major roads today.

Why not use our experience—and proved products—to improve *your* operations?

SOCONY-VACUUM OIL CO., INC., Railroad Division, 26 Broadway, New York 4, N.Y.

SOCONY-VACUUM

Railroad Lubricants

Correct Lubrication

WORLD'S GREATEST LUBRICATION KNOWLEDGE AND ENGINEERING SERVICE

tion of this company's 16-year period of reorganization is now scheduled for May 16, when transfer of the property from the trustee to the new corporation is slated to take place. Barring unforeseen delays, new securities of the reorganized company will be available for delivery around the middle of May. The effective date of the reorganization plan is January 1, 1944, but interest equal to that on the new bonds has been paid to holders of old bonds who are entitled to receive the new bonds, in the intervening years, except for 1952. Payment of interest for that year will be made when the new bonds are issued, according to Henry K. Norton, NYS&W trustee.

On the new 5 per cent preferred stock to be issued in connection with the reorganization, dividend arrearages amount to $25 a share. Money for these dividends is in the treasury, according to Mr. Norton, but its payment, he said, would be for the reorganization managers or the new directors to decide.

A description of the reorganization plan was published in *Railway Age*, March 24, 1945.

Securities

Bangor & Aroostook. — *Bonds Held by R.F.C.*—The Reconstruction Finance Corporation has announced it has available for sale $1,675,000 of B&A collateral trust 4 per cent bonds, due July 1, 1961. To allow time for interested parties to submit bids, the R.F.C. said final determination as to acceptance of bids will not be made prior to April 15.

Georgia & Florida.—*R.F.C. Loan.*—The Reconstruction Finance Corporation has approved a $717,000 loan for this road, proceeds to be used for purchase of 150 wood rack cars costing $797,400. The loan, with interest at 4 per cent, will mature in 10 years.

Kansas City Southern.—*Stock Split.*—The I.C.C. has authorized the KCS to split its common and preferred stocks on a two-for-one basis (*Railway Age*, February 9, page 91). April 11 has been set as the record date for dividing the presently issued 210,000 shares of four per cent non-cumulative preferred stock of $100 par value each into 420,000 $50-par value shares, and the presently issued no-par value 510,000 common shares into 1,020,000 no-par value shares. New certificates will be forwarded to stockholders on or about May 8. Purpose of the split is to make KCS stock more attractive to the average investor, promote wider distribution of outstanding shares, and increase marketability of the stock.

A CHECK FOR $142,327, marking the first dividend on preferred stock paid to the Canadian government by the Canadian National under the new capital structure is turned over by Donald Gordon (left), CNR chairman and president, to Lionel Chevrier, Minister of Transport. The check also represented the first peacetime surplus for the CNR since 1928.

Authorizations

CHICAGO & EASTERN ILLINOIS.—To assume liability for $2,100,000 of series J equipment trust certificates, to finance in part 14 passenger-train cars and 100 gondola cars costing an estimated $2,625,000 (*Railway Age*, March 16, page 22). Division 4 approved sale of the certificates for 99.08 with interest at 3⅝ per cent—the bid of Halsey, Stuart & Co. and six associates—which will make the average annual cost of the proceeds to the road approximately 3.78 per cent. The certificates, dated March 1, will mature in 30 semiannual installments of $70,000 each, beginning September 1, 1953. They were reoffered to the public at prices yielding from 2.4 to 3.75 per cent, according to maturity.

CHICAGO & NORTH WESTERN.—To assume liability for $8,400,000 of equipment trust certificates, to finance in part 63 diesel-electric units and 100 ore cars costing an estimated $11,202,220 (*Railway Age*, February 23, page 62). Division 4 approved sale of the certificates for 99.03 with interest at 3½ per cent—the bid of Halsey, Stuart & Co. and nine associates—which will make the average annual cost of the proceeds to the road approximately 3.69 per cent. The certificates, dated April 1, will mature in 15 annual innstallments of $560,000 each, beginning April 1, 1954. They were reoffered to the public at prices yielding from 2.5 to 3.625 per cent, according to maturity.

Security Price Averages

	Mar. 31	Prev. Week	Last Year
Average price of 20 representative railway stocks	66.61	69.41	60.40
Average price of 20 representative railway bonds	94.03	94.71	93.21

Dividends Declared

ATLANTIC COAST LINE.—5% preferred, $2.50, semiannual, payable May 11 to holders of record April 24.

BESSEMER & LAKE ERIE.—preferred, 75¢, semiannual, payable April 1 to holders of record March 13.

CAROLINA, CLINCHFIELD & OHIO.—$1.25, quarterly, payable April 20 to holders of record April 10.

DOVER & ROCKAWAY.—$3, semiannual, payable April 1 to holders of record March 31.

LAKE SUPERIOR & ISHPEMING.—35¢, quarterly, payable April 15 to holders of record April 1.

NORFOLK & WESTERN.—4% adjustment preferred, 25¢, quarterly, payable May 8 to holders of record April 16.

RICHMOND, FREDERICKSBURG & POTOMAC.—voting common, 75¢; dividend obligation, 75¢, both payable April 1 to holders of record March 20.

VERMONT & MASSACHUSETTS.—$3, semiannual, payable April 7 to holders of record March 27.

Railway Officers

EXECUTIVE

Directors of the LOUISIANA SOUTHERN have elected **Harry A. DeButts**, president and **John B. Hyde** and **W. Mason King**, vice-presidents, all at Washington, D.C. **John T. Moon** and **M. H. Ramsey** were elected vice-presidents at Cincinnati and Charlotte, N.C., respectively.

E. V. Hill, vice-chairman of the TRAFFIC EXECUTIVE ASSOCIATION—EASTERN RAILROADS, at New York, has been elected chairman, succeeding **John J. Fitzpatrick**, whose appointment as assistant vice-president—traffic (rates) of the NEW YORK, CHICAGO & ST. LOUIS (NICKEL PLATE) at Cleveland was reported in *Railway Age*

February 9, page 92. **John R. Wall,** chairman of the FREIGHT TRAFFIC COMMITTEE—CENTRAL TERRITORY RAILROADS, has been appointed vice-chairman of the Traffic Executive Association, with headquarters as before at Chicago. **C. Gordon Cruickshank** has been appointed vice-chairman of the Traffic Executive Association at New York, succeeding Mr. Hill.

As reported in *Railway Age* February 23, page 58, **L. P. Kennedy** has been elected resident vice-president of the NORFOLK SOUTHERN at Raleigh, N. C. Mr. Kennedy was born at Clinton, N. C., September 6, 1886, and attended North Carolina State College (1907). He entered railroad service in 1907 as agent for the Raleigh & Southport (now NS) at Fuquay Springs, N. C., and subsequently served the NS as dispatcher, chief clerk to superintendent, chief dispatcher and trainmaster, all at Raleigh. In 1923 he became division superintendent at New Bern, N.C., and in 1933, system superintendent there. Mr. Kennedy was appointed general superintendent of the road at Raleigh in 1935, the position he held until his recent election as resident vice-president.

L. P. Kennedy

C. A. Skog, vice-president of the CANADIAN NATIONAL-GRAND TRUNK WESTERN, at Detroit, retired from active service March 31. **S. J. Massey, Jr.,** general manager of the GTW, succeeds Mr. Skog as vice-president, while continuing as general manager.

Vincent H. Johnson has been elected vice-president—executive assistant to president of the AKRON, CANTON & YOUNGSTOWN at Akron, Ohio.

James R. Downs, vice-president—assistant to president of the PENNSYLVANIA at Philadelphia, has been granted a leave of absence and will retire on November 1, after nearly 52 years with the road.

Harland H. Best, general superintendent of the TOLEDO, PEORIA & WESTERN, has been appointed assistant to president in charge of way and structures. Mr. Best began his railroad career on the TP&W in 1909 as a bridge and building painter. He served in the Army from 1917 to 1919, returning to the TP&W in 1921 as assistant master, bridges and buildings.

Harland H. Best

In 1931 he was promoted to master, bridges and buildings, and six years later to superintendent. From 1944 to 1947 he was general manager for the federal manager and since then has served as general superintendent.

Joseph T. Theby, who has retired as vice-president and general manager of the CHICAGO & EASTERN ILLINOIS, (*Railway Age*, February 16), joined that company in 1906 as a yardmaster at St. Louis, following several years of service on other roads. During his career, Mr. Theby is said to have held "nearly every job" in the C&EI's operating department.

Joseph T. Theby

J. Sellers Bancroft, vice-president of the Wilmington Trust Company, has been named vice-president and secretary of the TOLEDO, PEORIA & WESTERN.

Kenneth Shealy has been elected vice-president in charge of finance and accounting, and also treasurer and assistant secretary, of the ATLANTA & ST. ANDREWS BAY, at Dothan, Ala.

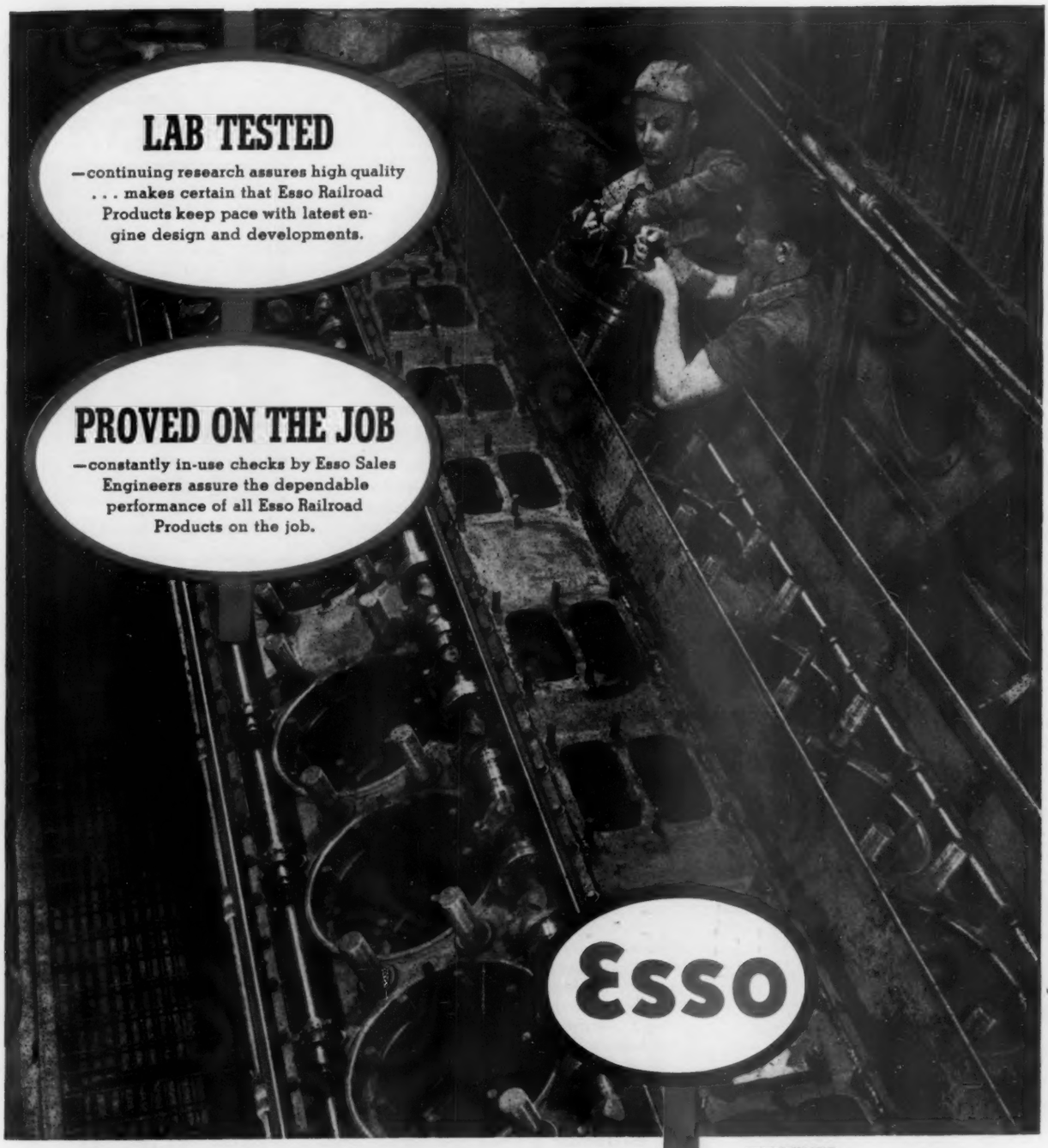
Henry W. Large, general coal traffic manager of the PENNSYLVANIA at Philadelphia, has been promoted to assistant vice-president, traffic, and **James W. Oram,** chief of personnel at Philadelphia, has been advanced to assistant vice-president, operation—personnel. Mr. Large's appointment is part of a program to broaden the scope of traffic development and to increase effectiveness of the service of this department. Mr. Oram, in his new post, will be in charge of the road's previously announced expanded employee relations activities, including employee training programs, in addition to relationships between management and labor organizations.

Harold C. Mauney, division superintendent of the SOUTHERN SYSTEM at Birmingham, Ala., has been appointed resident vice-president of the Southern System at New Orleans, succeeding **W. T. Turner,** vice-president of the NEW ORLEANS & NORTHEASTERN, a Southern System line. Mr. Turner is retiring at his own request because of illness, after 48 years of service.

Mr. Mauney was born at Charlotte, N.C., June 14, 1912; was graduated from the University of South Carolina (B.S. in Engineering, 1936), and entered railroad service in the roadway department of the Southern during summer vacations. In 1936 he entered full-time service with the Southern as a student apprentice, and worked up through the ranks to track supervisor and assistant trainmaster. From 1942 to 1945 Mr. Mauney served with the 727th Railway Operating Battalion in Africa and Europe. He returned to the Southern in October 1945 as assistant trainmaster at Strasburg, Va., becoming trainmaster at Alexandria, Va., two months later. After serving as assistant superintendent at Greenville, S.C., he was promoted to division superintendent at Birmingham in October 1947.

Harold C. Mauney

Mr. Turner was born in Virginia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and entered the employ of the Southern's freight traffic department in June 1905. He served successively as soliciting freight agent at Richmond, Va.; commercial agent at Lynchburg, Va.; division freight agent at Norfolk, Va., and Greensboro, N.C.; general traffic agent at Chattanooga, Tenn.; assistant freight traffic manager at Birmingham, Ala., and Washington, D.C.; and freight traffic manager at Washington. Mr. Turner became vice-president of the New Orleans & Northeastern (Southern System) at New Orleans in 1940.

FINANCIAL, LEGAL & ACCOUNTING

Directors of the LOUISIANA SOUTHERN have elected **Sidney S. Alderman,** general counsel; **T. H. Seay,** comptroller; **R. L. Eddington,** secretary; **M. G. Chew,** treasurer; **E. Bergelt,** auditor; **L. T. Cox,** assistant auditor; and **T. P. Carter,** auditor of disbursements, all at Washington, D. C. **J. D. Seay** was elected auditor revenues; **Noah Garner,** auditor freight accounts, and **B. R. Humrickhouse,** auditor overcharge claims, at Atlanta, Ga.

OPERATING

Karl C. Shults, superintendent of the ALABAMA GREAT SOUTHERN (SOUTHERN SYSTEM) has been appointed superintendent of the Southern's Birmingham division, with headquarters remaining at Birmingham, Ala. Mr. Shults succeeds **H. C. Mauney,** who has been appointed vice-president of the Southern at New Orleans. **James G. Beard,** Southern superintendent at Selma, Ala., has been appointed superintendent of the AGS at Birmingham, to succeed Mr. Shults. **John B. Singleton,** Southern trainmaster at Knoxville, Tenn., has been promoted to superintendent at Selma, succeeding Mr. Beard.

R. M. Esslinger, who has been appointed superintendent of the Toledo, Peoria & Western, with full jurisdiction over the transportation department. Mr. Esslinger came to the TP&W in 1942 as a switchman, receiving his promotion to trainmaster in 1950. Wilbur W. Miller has succeeded Mr. Esslinger as trainmaster.

C. T. Warren, general manager of the DES MOINES UNION, has resigned to accept the position of chief engineer of the SAUDI-ARABIAN GOVERNMENT RAILWAY at Dhahran, Arabia.

Thomas M. Goodfellow, superintendent of the Fort Wayne (Ind.) division of the PENNSYLVANIA, has been transferred to the Pittsburgh division succeeding **Buford W. Tyler,** whose appointment as assistant general manager of the Central region at Pittsburgh was announced in *Railway Age* March 30, page 28. **H. H. Vaughn,** assistant superintendent of the Southwestern division at Indianapolis, succeeds Mr. Goodfellow as superintendent of the Fort Wayne division. **George C. Vaughan,** superintendent of the Panhandle division at Pittsburgh, has been transferred to the Maryland division at Baltimore. **Nathan L. Fleckenstine,** division engineer on special duty, succeeds Mr. Vaughan as superintendent of the Panhandle division at Pittsburgh. **Robert E. Blosser,** freight trainmaster of the Middle division at Altoona, succeeds Mr. Vaughn as assistant superintendent of the Southwestern division at Indianapolis.

J. W. Plant, trainmaster of the ATLANTIC COAST LINE at Ocala, Fla., has been appointed assistant to general manager at Wilmington, N.C. **L. A. Anderson,** trainmaster at Lakeland, Fla., has been appointed acting superintendent of the Jacksonville district at Sanford, Fla., succeeding **O. V. Horace,** who has been transferred to the Montgomery (Ala.) district. Mr. Horace replaces **E. H. Cook,** who has been transferred to the Waycross (Ga.) district. **J. M. Perry,** terminal trainmaster, has been appointed superintendent terminals, with headquarters as before at Waycross. **J. U. Rooker,** road foreman of engines at Tampa, Fla., has been appointed acting trainmaster of the Tampa district, at Lakeland. **H. M. Cheely** has been named trainmaster of the Ocala district at Ocala.

Roberto Amoros has been appointed general manager of the MEXICAN RAILWAY at Mexico City, Mex., succeeding **Manuel R. Palacios. Victor G. Pina** has been appointed assistant general manager, succeeding **Rodolfo R. Palacios.**

Frederick Whittemore, superintendent transportation of the NASHVILLE, CHATTANOOGA & ST. LOUIS, has been promoted to general manager, succeeding **W. J. McWhorter,** who has retired.

Mr. Whittemore began his career with the NC&StL's purchasing department in 1909. He later worked in the office of the president and general manager, eventually becoming private secretary, then secretary to the chairman of the board, and later chief clerk

Frederick Whittemore

in the office of general manager. He was subsequently promoted to superintendent of safety, then to assistant superintendent of transportation, and in 1940 to superintendent of transportation.

Mr. McWhorter entered railroad service in 1904 as a telegraph operator with the NC&StL. From 1906 to 1924 he served successively as train dispatcher, chief dispatcher, and trainmaster, all at Atlanta. In 1924 he was promoted to assistant superintendent. For a 10-year period, beginning in 1927, he served as superintendent at Nashville, which was followed by his promotion to assistant general manager. In March 1946 he became general manager.

William J. McWhorter

TRAFFIC

Ellis W. Ernst, general agent, has been appointed traffic manager of the CHICAGO & NORTH WESTERN at St. Louis, succeeding **I. S. Olsen,** who was recently appointed freight traffic man-

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Expenses	160

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Revenue	328	421
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Revenue	328	421	535
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ager—sales at Chicago (*Railway Age*, February 16, page 61). Mr. Ernst started with the North Western as a stenographer in 1933, served in sales offices at Tulsa and Atlanta, and in 1946 was appointed commercial agent at New York. Two years later he was made general agent, freight department, there, and in 1951 was appointed general agent at Cleveland.

P. A. Schumpert, general eastern passenger agent of the SOUTHERN, has been promoted to general passenger agent, succeeding **T. F. Davidson,** resigned; **R. S. Tannehill,** division passenger agent, has been promoted to general eastern passenger agent, succeeding Mr. Schumpert and **Claude B. Smith,** city passenger agent, succeeds Mr. Tannehill as division passenger agent, all at New York.

Mr. Schumpert was born in South Carolina and entered the service of the Southern as a stenographer at Atlanta, Ga., in June 1912, subsequently serving there in various secretarial and clerical capacities. He later became traveling passenger agent at New York and Tampa, Fla., and city passenger agent at New York, Philadelphia and Raleigh, N.C. Mr. Schumpert was appointed district passenger agent in September 1942, division passenger agent in December 1944, and general eastern passenger agent in May 1946, all at New York.

The QUANAH, ACME & PACIFIC has moved its Chicago office to room 524, Utilities building, 327 South LaSalle street.

O. C. Rose has been appointed industrial agent of the ATLANTIC COAST LINE at Wilmington, N. C.

W. H. Wilson, assistant general agent of the Place Viger freight terminal of the CANADIAN PACIFIC at Montreal, has been appointed general agent there, succeeding **L. G. Savage,** who has been promoted to superintendent of merchandise service at Toronto.

C. H. Ware, traffic manager of the NORFOLK SOUTHERN, has been appointed general traffic manager, with headquarters as before at Norfolk, Va.

V. C. Knorst has been appointed general agent of the MISSOURI PACIFIC at Milwaukee, succeeding **W. R. Huhner,** who died recently.

L. J. Kidd, general agent of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC at Milwaukee, has been appointed assistant to western traffic manager at Seattle. **R. B. Birchard,** assistant general agent at Chicago, has been named general agent at Milwaukee. Mr. Kidd began his railway service with the operating department of the Milwaukee in 1915; entered the traffic department at Tacoma, Wash., in 1923 as a rate clerk, and subsequently was traveling freight and passenger agent there. From 1938 to 1943 he was division freight and passenger agent at Aberdeen, Wash., and then became export and import agent at Seattle. In 1947 he became assistant to western traffic manager, and a year later was appointed general agent at Seattle, transferring to Milwaukee in 1950.

R. A. Lentz, coal freight agent of the BALTIMORE & OHIO at New York, has been promoted to general coal freight agent at Baltimore, succeeding **Charles M. Gosnell,** who has retired after almost 50 years of service with the B&O. **W. F. Deets,** coal freight agent at Cincinnati, has been transferred to New York, succeeding Mr. Lentz.

MECHANICAL

C. E. Pond, superintendent motive power of the NORFOLK & WESTERN, has been appointed general superintendent motive power, with headquarters as before at Roanoke, Va., succeeding **Russell G. Henley,** who retired on March 31 because of physical disability, after more than 47 years of continuous service.

ENGINEERING

L. H. Hornsby has been appointed assistant chief engineer of the NORFOLK SOUTHERN at Norfolk, Va. The position of engineer structures and communications, formerly held by Mr. Hornsby, has been abolished. The position of principal assistant engineer, held by **G. P. Page,** also has been abolished, Mr. Page having resigned to accept a position with Weir-Kilby Corporation. **J. B. Davis, Jr.,** has been appointed office assistant.

SIGNALING & COMMUNICATIONS

The CHICAGO, BURLINGTON & QUINCY and its subsidiaries, the COLORADO & SOUTHERN and the FORT WORTH & DENVER have changed the name of their telegraph department to communications department. Resulting title changes are as follows:

For the system — **H. H. Hasselbacher** becomes general superintendent, communications department; and **T. W. Wigton** becomes superintendent, radio-communications, at Chicago;

For the CB&Q—**L. A. Wood** is now superintendent, communications department; **J. N. Schlentz** is communications engineer; **E. F. Hutchinson** is assistant communications engineer; and **H. D. Brown** is communications supervisor at Chicago; and

For the C&S-FW&D—**A. E. Parnell** is now superintendent communications and signals; **D. H. Thomsen** is assistant to superintendent, communications and signals; and **W. C. Panje** is supervisor, communications and signals, at Denver.

Thomas T. Hart has been appointed signal engineer of the NEW YORK CENTRAL, Lines East, including the BOSTON & ALBANY, with headquarters at Springfield, Mass., (*Railway Age*, February 9). Mr. Hart was born at Oriskany, N.Y., in 1903, attended Rensselaer Polytechnic Institute, and

Thomas T. Hart

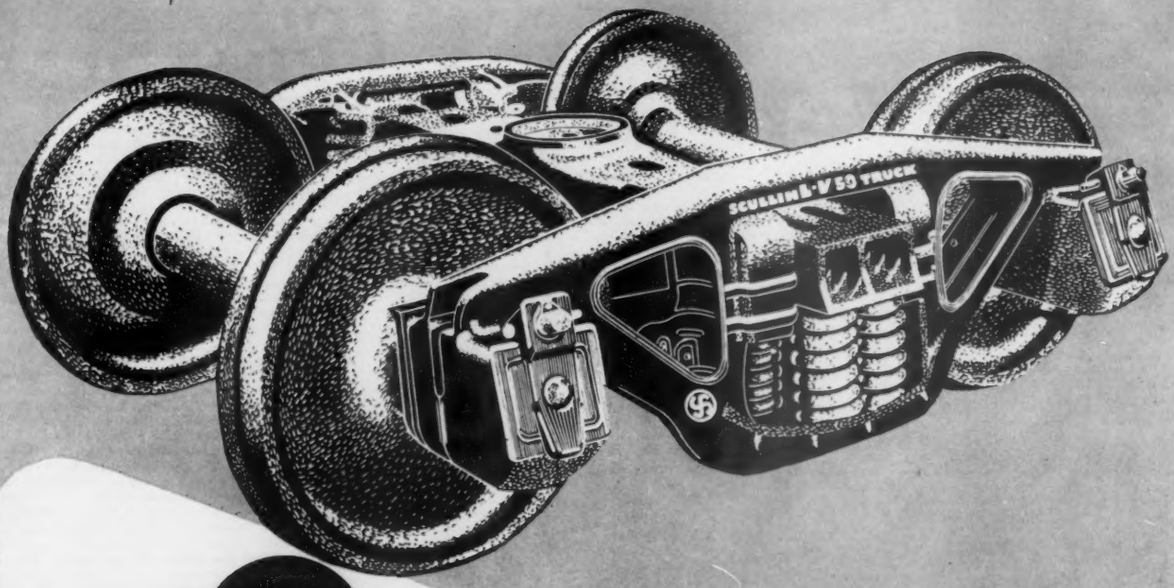
joined the Central in 1924 as helper in the signal department at Oriskany. He was appointed signal maintainer the same year and became engineer draftsman in 1929 and later assistant engineer. After a series of promotions, he was appointed office engineer in 1949 and assistant to signal engineer in 1951.

OBITUARY

Edward G. Buckland, 86, who was chairman of the board of the NEW YORK, NEW HAVEN & HARTFORD from 1929 to 1947 died on March 30 at his home in New Haven, Conn. Mr. Buckland was president of the Railroad Credit Corporation, created in 1932 by the Association of American Railroads with a fund of $73,500,000, to aid 53 financially ailing railroads.

Frederic A. Delano, 89, former president of the WHEELING & LAKE ERIE, now part of the NEW YORK, CHICAGO & ST. LOUIS, (1905-1908), the WABASH (1905-1911), and the CHICAGO, INDIANAPOLIS & LOUISVILLE (1913-1914), died on March 28 at his home in Washington, D.C. He was general manager of the CHICAGO, BURLINGTON & QUINCY from 1901 to 1905. During World War I Mr. Delano served on the staff of Brigadier General William W. Atterbury, director general of transportation at Tours, France, and was discharged from the Army as a colonel.

George E. Graham, 82, who retired as vice-president and general manager of the DOMINION ATLANTIC in 1940, after 52 years of railroading, died on March 25 at Kentville, N.S.



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Meetings & Conventions

The following list gives names of secretaries; dates and places of next or regular meetings.

AIR BRAKE ASSOCIATION.—Lawrence Wilcox, Room 827, 80 E. Jackson Blvd., Chicago 4. Annual meeting, September 14-16, 1953, Hoteel Sherman, Chicago

ALLIED RAILWAY SUPPLY ASSOCIATION.—C. F. Weil, P. O. Box 5522, Chicago 80.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS. — T. R. Stanton, 1450 Railway Exchange Bldg., St. Louis 1. Annual meeting, June 9-11, 1953, Hotel Statler, Detroit.

AMERICAN ASSOCIATION OF PASSENGER RATE MEN. —Paul E. Nordgren, Chicago, North Shore & Milwaukee, 105 W. Madison St., Chicago 2. Annual meeting, September 10-12, 1953, aboard Steamer Tadoussac on Saguenay River cruise, leaving Montreal on September 10.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS. — B. D. Branch, Eastern Timetable Distributing Company, Liberty Street Terminal, New York 6.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, June 2-4, 1953, La Salle Hotel, Chicago.

AMERICAN ASSOCIATION OF TRAVELING PASSENGER AGENTS.—C. A. Melin, P. O. Box 5025, Cleveland 2. Annual meeting, September 15-16, 1953, Montreal, Que.

AMERICAN COUNCIL OF RAILROAD WOMEN.—Eleanor Runquist, Pullman Company, Merchandise Mart Plaza, Chicago 54.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, September 15-17, 1953, Conrad Hilton Hotel, Chicago.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York 6.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—P. R. Farlow, Illinois Central, 135 E. Eleventh Pl., Chicago 5. Annual meeting, April 20-22, 1953, Battle House Hotel, Mobile, Ala.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division—Neal D. Howard, 59 E. Van Buren St., Chicago 5.

AMERICAN RAILWAY MAGAZINE EDITORS ASSOCIATION.—T. J. Zirbes Jr., Rock Island Lines News Digest, La Salle Street Station, Chicago 5.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—C. E. Huntley, 2000 Massachusetts Ave., N. W., Washington 6, D. C. Special meeting, June 23, 1953, Haddon Hall, Atlantic City.

AMERICAN SOCIETY FOR TESTING MATERIALS.—R. J. Painter, 1916 Race St., Philadelphia 3. Annual meeting, June 29-July 3, 1953, Chalfonte-Haddon Hall, Atlantic City.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18. Annual meeting, November 29-December 4, 1953, Statler Hotel, New York.

Railroad Division. — E. L. Woodward, *Railway Locomotives and Cars*, 79 W. Monroe St., Chicago 3.

AMERICAN WOOD-PRESERVERS' ASSOCIATION.—W. A. Penrose, 839 Seventeenth St., N. W., Washington 6, D. C. Annual meeting, April 28-30, 1953, Hotel Cleveland, Cleveland.

ASSOCIATED TRAFFIC CLUBS OF AMERICA.—R. A. Ellison, Cincinnati Chamber of Commerce, 1203 Federal Reserve Bank Bldg., Cincinnati 2. Annual meeting, September 21-23, 1953, Statler Hotel, Boston.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—W. F. Ziervogel, 605 S. Ranken Ave., St. Louis 3. Annual meeting, October 13-15, 1953, Jung Hotel, New Orleans.

ASSOCIATION OF AMERICAN RAILROADS.—George M. Campbell, Transportation Bldg., Washington 6, D. C.

Operations and Maintenance Department.—J. H. Aydelott, Vice-president, Transportation Bldg., Washington 6, D. C.

Operating-Transportation Division. — L. R. Knott, 59 E. Van Buren St., Chicago 5.

Operating Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5.

Communications Section.—A. H. Grothmann, 59 E. Van Buren St., Chicago 5. Annual meeting, October 20-22, 1953, Hotel Plaza, San Antonio, Tex.

Fire Protection and Insurance Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5. Annual meeting, October 12-14, 1953, Hotel Statler, St. Louis.

Freight Loss and Damage Prevention Section.—G. H. Ruhle, 59 E. Van Buren St., Chicago 5. Annual meeting, May 13, 1953, Conrad Hilton Hotel, Chicago.

Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5. Annual meeting, May, 26-28, 1953, Hotel Statler, Detroit.

Medical and Surgical Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

Protective Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5. Annual meeting, May 12-14, 1953, Williamsburg Inn, Williamsburg, Va.

Safety Section.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5. Annual meeting, June 2-4, 1953, Hotel Statler, St. Louis.

Electrical Section of the Engineering and Mechanical Divisions.—S. W. Marras, 59 E. Van Buren St., Chicago 5. Annual meeting, June 24-26, 1953, Convention Hall, Atlantic City.

Engineering Division.—E. G. Gehrke, 59 E. Van Buren St., Chicago 5.

Construction and Maintenance Section.—Neal D. Howard, 59 E. Van Buren St., Chicago 5.

Signal Section.—R. H. C. Balliet, 59 E. Van Buren St., Chicago 5. Annual meeting, September 28-30, 1953, Chase Hotel, St. Louis.

Mechanical Division.—Fred Peronto, 59 E. Van Buren St., Chicago 5. Annual meeting, June 22-26, 1953, Convention Hall, Atlantic City.

Purchases and Stores Division.—John L. Timanus, Transportation Bldg., Washington 6, D. C. Annual meeting June 22-26, 1953, Convention Hall, Atlantic City.

Freight Claim Division.—C. C. Beauprie, 59 E. Van Buren St., Chicago 5. Annual meeting, May 12-14, 1953, Conrad Hilton Hotel, Chicago.

Car Service Division.—Arthur H. Gass, Chairman, Transportation Bldg., Washington 6, D. C.

Finance, Accounting, Taxation and Valuation Department. — Arthur R. Seder, Vice-president, Transportation Bldg., Washington 6, D. C.

Accounting Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C. Annual meeting, June 2-4, 1953, Edgewater Beach Hotel, Chicago.

Treasury Division.—R. E. Keefer, Transportation Bldg., Washington 6, D. C. Annual meeting, September 17-19, 1953, Grand Hotel, Mackinac Island, Mich.

Traffic Department.—Walter J. Kelly, Vice-president, Transportation Bldg., Washington 6, D. C.

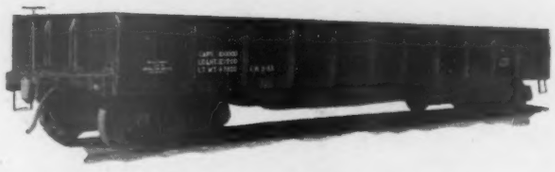
ASSOCIATION OF INTERSTATE COMMERCE COMMISSION PRACTITIONERS.—Miss Sarah F. McDonough, Executive Secretary, 2218 I.C.C. Building, Washington 25, D. C. Annual meeting, May 13-14, 1953, St. Francis Hotel, San Francisco.

ASSOCIATION OF RAILROAD ADVERTISING MANAGERS.—A. W. Eckstein, Asst. Secy., Illinois Central, 135 E. Eleventh Pl., Chicago 5. Annual meeting, January 28-30, 1954, New Orleans.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Gulf, Mobile & Ohio, 104 St. Francis St., Mobile 5, Ala. Annual meeting, May 20-22, 1953, Hotel Statler, Detroit.

BRIDGE AND BUILDING SUPPLY ASSOCIATION.—L. R. Gurley, Modern Railroads, 201 N. Wells St., Chicago 6. Exhibit in conjunction with the meetings of the American Railway Bridge & Building Asso-

For Sale



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THRALL

CAR MANUFACTURING COMPANY

Chicago Heights, Illinois

ciation and Roadmasters & Maintenance of Way Association, September 14-17, 1953, The Coliseum, Chicago.

CANADIAN RAILWAY CLUB. — C. R. Crook, P. O. Box 162, Montreal 3, Que. Regular meetings, second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS. — D. W. Kramer, 7207 W. Main, Belleville, Ill. Regular meetings fourth Tuesday of each month except June, July and August, Hotel Desoto.

CAR DEPARTMENT OFFICERS' ASSOCIATION. — F. H. Stremmel, 6536 Oxford Ave., Chicago 31. Annual meeting, September 14-16, 1953, Hotel Sherman, Chicago.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—W. R. McCain, Mather Stock Car Company, 326 N. Michigan Ave., Chicago 1. Regular meetings, second Monday of each month, except June, July and August, LaSalle Hotel.

CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, Hotel Statler, McKinley Square, Buffalo 5. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. C. Rochester, Canadian National, 891 Notre Dame St., West, Montreal 3, Que. Next meeting, May 7-8, 1953, Wardman Park Hotel, Washington, D. C.

EASTERN CAR FOREMAN'S ASSOCIATION. — W. P. Dizard, 30 Church St., New York 7. Regular meetings, second Friday of January, February, March, April, May, October and November, 29 W. 39th St.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark. Annual meeting, September 14-16, 1953, Hotel Sherman, Chicago.

MAINTENANCE OF WAY CLUB OF CHICAGO.—E. C. Patterson, 400 W. Madison St., Chicago 6. Regular meetings, fourth Monday of each month, October through April inclusive, except December, which is third Monday, at Eitel's Restaurant, Field Bldg.

MASTER BOILER MAKERS' ASSOCIATION. — A. F. Stiglmeier, 29 Parkwood St., Albany 8. Annual meeting, September 14-16, 1953, Hotel Sherman, Chicago.

METROPOLITAN MAINTENANCE OF WAY CLUB.—John S. Vreeland, Simmons-Boardman Publishing Corp., 30 Church St., New York 7. Meets in February, April, October and December. Next meeting, April 28, 1953, Hotel Shelbourne, New York.

MILITARY RAILWAY SERVICE VETERANS. — J. E. McNamara, 332 S. Michigan Ave., Chicago 4. Annual meeting, September 18-20, 1953, New Orleans.

MISSISSIPPI VALLEY MAINTENANCE OF WAY CLUB.—P. E. Odom, 1008 Frisco Building, 906 Olive St., St. Louis. Regular meetings, second Monday of each month through May, DeSoto Hotel, St. Louis.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Austin L. Roberts, Jr., 7413 New Post Office Bldg., Washington 4, D. C. Annual meeting, September 21-24, 1953, Roosevelt Hotel, New York.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—J. W. Witherspoon, U. S. Rubber Company, 784 San Pedro St., S, Los Angeles 14. Annual meeting October 6-8, 1953, Omaha, Neb.

NATIONAL DEFENSE TRANSPORTATION ASSOCIATION.—Mrs. Lois C. Gebran, 1001 Connecticut Ave., Washington, D. C. Annual meeting, October 11-13, 1953, Brown Hotel, Louisville, Ky.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE. — L. J. Dorr, 909 Sheraton Bldg., Washington 5, D. C. Annual meeting, November 19-20, 1953, Jung Hotel, New Orleans.

NATIONAL RAILWAY APPLIANCES ASSOCIATION.—J. B. Templeton, Templeton, Kenly & Co., 1020 S. Central Ave., Chicago 44. Lewis Thomas, Asst. Secy., 59 E. Van Buren St., Chicago 5.

NATIONAL SAFETY COUNCIL, RAILROAD SECTION.—F. R. Callahan, Pullman Co., Merchandise Mart Plaza, Chicago 54. Annual meeting, October 20-22, 1953, Morrison Hotel, Chicago.

NEW ENGLAND RAILROAD CLUB.—William M. McCombs, 35 Lewis Wharf, Boston 10. Regular meetings, second Tuesday of each month, except May, June, July, August and September, Hotel Vendome, Boston.

NEW YORK RAILROAD CLUB.—C. T. Stansfield, 30 Church St., New York 7. Regular meetings, third Thursday of each month except June, July, August, September and December, Century Room, Commodore Hotel. Reception, 6 P.M.; dinner, 7; meeting, 8:15.

NORTHWEST CARMEN'S ASSOCIATION.—G. H. Wells, Northern Pacific Railway, St. Paul 1, Minn. Regular meetings, first Monday of each month, except June, July, and August, Midway Club, 1931 University Ave., St. Paul.

NORTHWEST LOCOMOTIVE ASSOCIATION. — R. M. Wigfield, Northern Pacific Ry., Room 1134, G. O. Bldg., St. Paul 1, Minn. Regular meetings, third Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul.

PACIFIC RAILWAY CLUB. — S. E. Byler, 121 E. Sixth St., Los Angeles 14. Regular meetings, second Thursday of each alternate month at Sir Francis Drake Hotel, San Francisco, and Elks' Temple, Los Angeles.

RAILROAD PUBLIC RELATIONS ASSOCIATION.—J. Don Parel, Association of American Railroads, Transportation Bldg., Washington 6, D. C.

(Continued on page 113)

Self-contained air foam unit—only 24½" x 24½" x 70"—is always ready for instant action. One man can operate it, from either side of the cab.

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PYRENE PROTECTS RAILROADS 4 WAYS

1. Diesel engine protection with the self-contained, small-space Pyrene* air foam unit. The 100 gal. unit discharges 1750 gal. of fire-killing air foam at the rate of 350 gal. per minute. Sufficient for almost any conceivable emergency.

NOTE. *The A.A.R. recently recommended that stationary foam systems be installed in all units in addition to portable equipment.*

2. Diesel repair shop protection with Pyrene Proportioning Tanks. One tank (it can be installed in an out-of-the-way spot) can supply up to 1000 gal. of foam a minute to one or more Pyrene Foam Playpipes at any required locations.

3. Oil storage tank protection with Pyrene fire-fighting systems. Manual or automatic types with capacities of hundreds up to thousands of gallons of foam per minute.

4. General protection for rolling stock, buildings and automotive vehicles with Pyrene Fire Extinguishers and wheeled units of various types. There's a Pyrene for every fire hazard!

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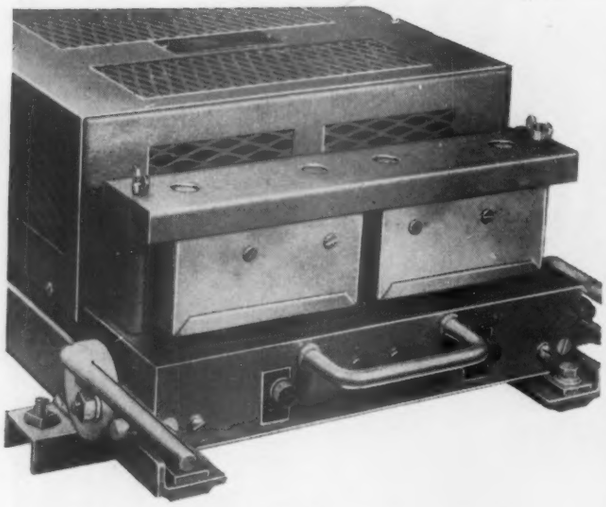

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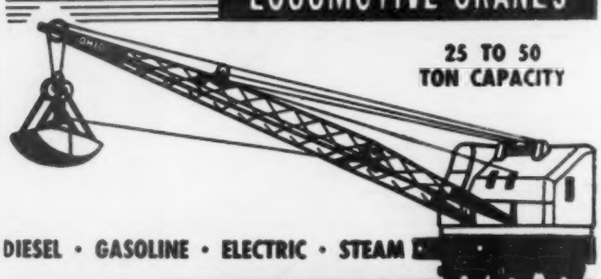

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RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, 38 S. Dearborn St., Chicago 3.

RAILWAY CLUB OF PITTSBURGH.—G. E. Morrison, 2710 Koppers Bldg., Pittsburgh 19. Regular meetings third Thursday of each month, except June, July, August, September and December, Fort Pitt Hotel.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 445-447 N. LaSalle St., Chicago 10.

RAILROAD FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—L. H. Peters, New York Central, Room 1213, 139 W. Van Buren St., Chicago 5. Annual meeting, September 14-16, 1953, Hotel Sherman, Chicago.

RAILWAY SYSTEMS AND PROCEDURES ASSOCIATION.—J. W. Milliken, *Railway Age*, 30 Church St., New York 7. Annual meeting, April 22-24, 1953, Palmer House, Chicago.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION. — A. W. Brown, 60 E. 42nd St., New York 17. Exhibit in conjunction with meetings of the Mechanical Division and Purchases & Stores Division, A.A.R., June 22-27, 1953, Convention Hall, Atlantic City.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION. — G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7. Meets with Communications Section of A.A.R.

RAILWAY TIE ASSOCIATION. — Roy M. Edmonds, 1221 Locust St., St. Louis 3. Annual meeting, October 14-16, 1953, Biltmore Hotel, Atlanta.

ROADMASTERS AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, September 15-17, 1953, Conrad Hilton Hotel, Chicago.

ST. LOUIS RAILROAD DIESEL CLUB.—F. C. Whitlock, Terminal Railroad Association of St. Louis, 376 Union Station, St. Louis 3. Regular meetings, second Tuesday of each month, Hotel York. Dinner, 6:45 P.M., meeting, 8.

SIGNAL APPLIANCE ASSOCIATION. — G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7. Meets with A.A.R. Signal Section.

SOUTHEASTERN RAILWAY DIESEL CLUB. — H. W. Brewer, Seaboard Air Line, Jacksonville, Fla. Regular meetings, second Tuesday in February, April, June, August, October and December, 9:30 a.m., Mayflower Hotel, Jacksonville.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB. — A. T. Miller, 4 Hunter St., S. E., Atlanta. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS. — F. I. Umhau, Southern Ry., Atlanta 3.

TORONTO RAILWAY CLUB.—J. A. North, P.O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July, and August, Royal York Hotel.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q and C Company, 59 E. Van Buren St., Chicago 5. Exhibit in conjunction with the meetings of the American Railway Bridge & Building Association and the Roadmasters & Maintenance of Way Association, September 14-17, 1953, The Coliseum, Chicago.

WESTERN ASSOCIATION OF RAILWAY TAX COMMISSIONERS.—M. L. Boydston, 516 W. Jackson Blvd., Chicago 6. Regular meetings, 12:15, first Wednesday of each month, except July and August, Traffic Club, Palmer House, Chicago.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago 1. Meetings scheduled for April 20 and May 18, 1953, Hotel Sherman, Chicago.

Current Publications

PAMPHLETS

Westinghouse Engineering Highlights. 50 pages, illustrations. Reprinted from the January 1953 issue of Westinghouse Engineer. Westinghouse Electric Corporation, Box 2278, Pittsburgh 30.

Westinghouse again presents a review of the recent activities of its scientists and engineers. As in previous years, it consists of short discussions of selected subjects, which include steam and gas turbines, nuclear power, power-line carrier and microwave, electric heating and welding, rail transportation, lamps and lighting, and air conditioning.

Everyman's Almanac, 1953. 32 pages. Michigan Railroads Association, Prudden bldg., Lansing 16, Mich. Free.

In addition to containing interesting facts about railroads in general, and those in Michigan in particular, this pamphlet contains data on weather, weights and measures, and other almanac-type information.

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PHILADELPHIA, MAY 18th THROUGH 22nd, 1953
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• And watch CLARK SERVICE in action! SEE THE SERVICE AND MAINTENANCE FACILITIES AVAILABLE TO EVERY CLARK USER!
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Longer Life: A recent analysis of all EDISON car-lighting batteries replaced by one railroad during a period of 12 months showed that the batteries had given an average of 26.18 years of service.

A similar analysis of all EDISON batteries replaced by another railroad during a period of 12 months—from both air-conditioned and non-air-conditioned cars—showed an average of 18.04 years of service.

Lower Maintenance: We have recently totaled the amount billed by us for cell repairs, tools, paint and electrolyte during a 12-month period to the same group of railroads. The amounts were found to range from $2.46 per battery per year to $6.99 per battery per year.

More than 2000 sets of EDISON batteries are in operation by the railroads in this group—a sufficiently large number of batteries that their long life and low cost are likely to be representative and may fairly be presented as trustworthy evidence of economy.

More than Economy is designed into EDISON batteries. They give superior road performance; can safely be maintained in a high state of charge; have no prescribed discharge limits; seldom need yard charging; can effect savings of as much as 1500 to 2000 pounds per car. Write for Bulletin SB 3802 and name of your nearest Edison field engineer. Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, New Jersey.

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CANADIAN PACIFIC RAILWAY COMPANY

Seventy-Second Annual Report of the Directors to the Shareholders

(Abridged)

Highlights

YEAR'S RESULTS	1952	1951	Increase or Decrease
Gross Earnings	$ 457,808,969	$ 428,911,639	$28,897,330
Working Expenses	428,878,189	402,098,807	26,779,382
Net Earnings	28,930,780	26,812,832	2,117,948
Ratio Working Expenses to Gross Earnings	93.7%	93.7%	—
Other Income	$ 22,651,775	$ 29,343,635	$ 6,691,860
Interest and Rental Charges	12,504,010	12,848,997	344,987
Dividends —Preference Stock	3,102,382	3,328,010	225,628
—Ordinary Stock	20,664,464	20,100,000	564,464
Balance for Modernization and Other Corporate Purposes	15,311,699	19,879,460	4,567,761

YEAR-END POSITION	1952	1951	Increase or Decrease
Property Investment	$1,532,182,785	$1,487,838,973	$44,343,812
Other Investments	175,579,208	181,326,551	5,747,343
Funded Debt	112,516,000	99,045,000	13,471,000
Reserves	552,004,485	538,407,062	13,597,423
Working Capital	116,925,631	103,859,161	13,066,470
TRAFFIC			
Tons of Revenue Freight Carried	61,504,788	60,650,472	854,316
Revenue Passengers Carried	9,868,075	10,460,532	592,457
Revenue per Ton Mile of Freight	1.30c	1.31c	0.01c
Revenue per Passenger Mile	2.83c	2.82c	0.01c
EMPLOYEES			
Employees, All Services	95,695	92,012	3,683
Total Payrolls	$ 297,894,376	$ 273,963,465	$23,930,911
Average Annual Wage	$ 3,113	$ 2,977	$ 136

The volume of transportation service provided by your Company in 1952 was in excess of that of any previous year. The record grain harvest in Western Canada, together with a continued high level of activity in industry and in the development of natural resources, resulted in heavy demands upon your railway facilities.

Notwithstanding a new peak in freight traffic and gross earnings, railway net earnings were equivalent to only 6.3 cents per dollar of gross, the same as in 1951. The average revenue received by your railway for its principal service, the carriage of freight, was 1.30 cents per ton mile and was less than in 1950 and 1951. On the other hand, both labour and material costs were substantially higher.

As a result of the large grain crop and a large carry-over from the previous year, the movement of grain and grain products constituted more than 40% of total freight traffic. Since rates on the greater part of the grain moving within Western Canada are still at a level established in 1899, the brunt of increases in freight rates towards meeting higher railway costs has had to be borne by the remainder of the traffic. Railway wage rates and material prices have doubled since 1939, while the average increase in freight rates in terms of all traffic has been a half only. This disparity, although mitigated to some extent by increased efficiency in transportation, has markedly affected the net earnings of your railway.

During the year, $60 million was spent on improvements and additions to your railway properties, bringing the total expended during the past three years up to $180 million. It is estimated that capital outlays of $475 million will be required during the next five years to replace wornout facilities and to continue the programme of improvements and additions that are necessary to keep pace with the expanding economy. It is essential that investors should have confidence in the future of your railway. The return of 2½% earned on railway investment in 1952, and the low returns in each of the postwar years, do little to create such confidence.

In order to ensure a sound basis for financing new capital requirements and a reasonable return to shareholders on their investment, the Board of Transport Commissioners has been requested to establish the net investment in your railway enterprise as a rate base and to fix as fair a rate of return of not less than 6½% on such base.

Lower dividends declared by The Consolidated Mining and Smelting Company of Canada, Limited, and a decrease in net earnings from ocean steamship operations, resulted in a decline in Other Income of $6.7 million from the peak of 1951.

The Income and Profit and Loss Accounts of your Company show the following results for the year ended December 31, 1952:

Income Account

Gross Earnings		$457,808,969
Working Expenses		428,878,189
Net Earnings		$ 28,930,780
Other Income		22,651,775
		$ 51,582,555
Fixed Charges		12,504,010
Net Income		$ 39,078,545
Dividends—Preference Stock:		
2% paid August 1, 1952 .. $ 1,556,832		
2% payable February 2, 1953 1,545,550		
	$ 3,102,382	
Dividends—Ordinary Stock:		
3% paid August 1, 1952 ... $10,313,703		
3% payable February 27, 1953 10,350,761		
	20,664,464	
		23,766,846
Balance transferred to Profit and Loss Account		$ 15,311,699

Profit and Loss Account

Profit and Loss Balance December 31, 1951		$252,947,332
Balance of Income Account for the year ended December 31, 1952 ..	$15,311,699	
Portion of steamship insurance recoveries representing excess over net book value, S.S. Princess Kathleen, and compensation for increased cost of tonnage replacement	2,225,088	
Excess of considerations received for sales of properties over book values	305,415	
Miscellaneous Net Debit	333,088	
		17,509,114
Profit and Loss Balance December 31, 1952, as per Balance Sheet		$270,456,446

Railway Operations

Increasing for the sixth successive year, railway gross earnings amounted to $457.8 million and exceeded the previous high of 1951 by $28.9 million. Freight earnings, which provided more than four-fifths of gross earnings, were up $25.7 million.

The volume of freight traffic rose by 8% in terms of ton miles, and was greater than in any previous year. There were decreases in the tonnage of many manufactured commodities, and total tonnage would have been below the 1951 level but for the substantial increase in grain handlings.

Passenger earnings increased $1.2 million. While there was a decrease in the number of passengers carried, a higher proportion of long haul traffic resulted in an increase in total revenue passenger miles.

Gross express earnings were up $4.4 million. About $2 million of this increase was due to higher rates. Net revenues, which are carried to railway earnings as compensation for the haulage of express traffic, increased $1.5 million.

Working expenses, at $428.9 million, were up $26.8 million. The cost of changes in working conditions and wage rates for the year amounted to $19 million. This cost included the impact for a full year of the forty-hour week granted to non-operating employees effective June 1951 and provision for the retroactive

(Advertisement)

application to various dates of increases granted to certain operating employees early in 1953.

Maintenance expenses increased $10 million. Expenditures were credited with the balance of $5 million remaining in the Maintenance Fund. Prices of ties, rails and certain other materials increased substantially over 1951.

The track maintenance programme included the laying of 567 miles of new rail, all of which was 100 lbs. or over, and 531 miles of relay rail of various weights; the installation of 2.8 million ties, of which 96% were treated; and the application of ballast to 581 miles of line, including 180 miles of rock ballast. Automatic block signal systems were installed on 135 miles of track.

The equipment repair programme covered complete overhauls of 708 steam locomotives, periodic repair of 107 diesel-electric units, and the general repair of 37,948 freight and 1,088 passenger cars. The utilization of equipment continued at a high level throughout the year.

Transportation expenses were up $11.6 million. Operating efficiency showed a marked improvement. The average freight train load was up from 1,700 to 1,748 tons, with an increase in freight train speed from 16.6 to 17.4 miles per hour, resulting in an increase of 8% in gross ton miles per freight train hour. The improvement, while in part attributable to the greater proportion of long haul and heavier commodities handled, reflects the increasing benefits resulting from the greater use of diesel power, automatic block signalling systems and other technological advances.

Railway tax accruals, at $20.4 million, were up $1 million. There was an increase in income taxes arising mainly from the introduction of the 2% Old Age Security Tax and the new Tax Rental Agreement between the Canadian Government and the Province of Ontario. Taxes on railway income totalled $13 million.

Net earnings from railway operations were $28.9 million compared with $26.8 million for 1951, and $38.0 million for 1950. The ratio of net to gross earnings, at 6.3%, was less than one-half of the average for the previous twenty-five years.

Other Income

Other Income, after income taxes of $5.3 million, amounted to $22.7 million, and was down $6.7 million from 1951.

Net earnings from ocean and coastal steamships decreased $3.9 million, due chiefly to a decrease in the volume of freight carried by your ocean steamships and lower cargo rates on the North Atlantic.

Net earnings of hotels were up $534,000. Room rates were increased and occupancy was higher.

Net earnings from communication services were little changed. Gross earnings benefited from increases in telegraph rates and leased private wire business, but expenses were adversely affected by higher wage rates.

Dividend income fell $4.6 million as a result of a decrease in dividends declared by The Consolidated Mining and Smelting Company of Canada, Limited. Dividends declared on the stock of that Company were at the rate of $1.65 per share out of earnings of $2.00 per share as compared with dividends of $2.20 per share out of earnings of $3.10 per share in 1951.

Net income from interest, separately operated properties and miscellaneous sources increased $690,000. A credit of $900,000 compared with $163,000 last year, was included with respect to Canadian Australasian Line Limited. These credits have offset in part provisions made in prior years in respect of deficits of that Company. The credit in 1952 covers the period July 1, 1951, to December 31, 1952, and includes an item of $546,000 resulting from closing out the replacement reserve set aside at the time of the loss of the "Niagara" in 1940.

Fixed Charges

Fixed charges amounted to $12.5 million, a reduction of $345,000.

The cost of interest and rental charges payable in sterling and United States currency was lower as a result of appreciation in the value of the Canadian dollar. Conversion of Convertible Collateral Trust Bonds into Ordinary Capital Stock accounted for a further decrease. Increases arose from the inclusion of interest for a full year on the Convertible Fifteen Year 3½% Collateral Trust Bonds dated October 1, 1951, and from the issue of Convertible Seventeen Year 4% Collateral Trust Bonds dated December 1, 1952.

Net Income and Dividends

Net income after fixed charges was $39.1 million, a decrease of $4.2 million from 1951 and $8.8 million from 1950. After provision for dividends of 4% on Preference Stock, earnings available for dividends on Ordinary Stock and for reinvestment amounted to $36.0 million. This was equal to $2.61 per share on 13,801,015 shares of Ordinary Stock outstanding at the year-end, compared with $2.98 on 13,400,000 shares last year. Dividends of $1.50 per share were declared on Ordinary Stock.

Land Accounts

Cash received on land account totalled $8.4 million, while disbursements, including income taxes, were $2.6 million.

Sales of land amounted to $2.9 million, which included 23,945 acres of farm land sold at an average price of $7.40 per acre. Deferred payments on lands and townsites were reduced by $860,000 to $5.8 million.

Receipts from petroleum rents, royalties and reservation fees amounted to $3.6 million, an increase of $1.4 million. More than one-third of the increase resulted from an agreement reached with a major oil company, whereby it agreed to take under lease, at an annual rental of $1.00 per acre, effective January 2, all of the acreage it formerly held in Alberta under reservation at a nominal fee. Oil production, subject to royalties, amounted to 6.3 million barrels, as compared with 3.7 million barrels in 1951. The location of wells at the end of 1952 and 1951 was as follows:

Field	1952	1951
Leduc	122	67
Lloydminster	91	62
Redwater	36	36
Armena — Camrose	30	4
Wizard Lake — Bonnie Glen — Pigeon Lake	20	2
Various other areas	151	108
Total	450	279

In an action brought in Alberta against your Company and Imperial Oil Limited as lessee involving some 160 acres in respect of which petroleum rights are held under a reservation of "all coal, petroleum and valuable stone," the plaintiff Michael Borys claimed ownership of the "natural gas" as not being included under the reservation of "petroleum." Appeals were taken by all parties to the Judicial Committee of the Privy Council which affirmed the judgment of the Supreme Court of Alberta (Appellate Division) and dismissed the appeals. That Court held that while petroleum and natural gas are different substances, gas in solution in the liquid in the ground but not the so-called free gas in the gas cap, is the property of your Company and its lessee. The Court also held that although the natural gas in the gas cap belonged to the plaintiff, your Company and Imperial Oil Limited are entitled to extract the petroleum, provided they do so in a reasonable manner, even if there is interference with or wastage of gas belonging to the plaintiff. This decision will affect about one-eighth of your petroleum rights.

Another action affecting the title to some of your petroleum rights is one brought by Anton Turta, in 1950, against your Company and Imperial Oil Limited as lessee, claiming title to the petroleum underlying 160 acres of land in Alberta. The land in question was transferred in 1908 to a predecessor of the plaintiff, reserving "all coal and petroleum." By an error of the Registrar of Titles, a certificate of title was issued omitting this reservation. The error was discovered and corrected in 1943. The plaintiff succeeded at the trial by a judgment dated May 20, 1952. An appeal was taken to the Appellate Division, was argued in January, 1953, and judgment was reserved.

Balance Sheet

Total assets at the end of the year amounted to $1,918 million, an increase of $57 million.

Property investment increased $44.3 million. The capital expenditures for rolling stock was $48.2 million, of which $29.9 million was for freight train cars, $4.9 million for passenger train cars and $12.1 million for diesel-electric locomotives. Investment in steamships was down $4.1 million following the retirement of the "Empress of Australia" and the "Princess Kathleen."

The Canadian Australasian Line Limited reduced its capitalization and paid your Company $730,000 on surrender of 7,300

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shares. Your holdings, which are carried in Miscellaneous Investments, were accordingly reduced to 17,033 shares.

Working capital was $116.9 million, an increase of $13.1 million. Current assets were equal to $2.37 per dollar of current liabilities as compared with $2.28 in 1951.

Finance

Serial equipment obligations amounting to $11.4 million matured and were discharged.

Convertible Seventeen Year 4% Collateral Trust Bonds dated December 1, were issued and sold in the principal amount of $35 million, secured by pledge of $42 million principal amount of Consolidated Debenture Stock. These bonds are callable on or after December 1, 1953, at 103.50% up to and including December 1, 1955; thereafter up to and including December 1, 1967, at percentages reducing by one-half of one per cent each two years; and thereafter at 100%; plus accrued interest in each case. The holders have the right at any time commencing June 1, 1953, and up to an including June 1, 1960, to convert their bonds into Ordinary Capital Stock in the ratio of thirty (30) shares of the par value of $25 each to each $1,000 principal amount of the bonds.

During the year $9.8 million Convertible Twenty Year 3⅛% Collateral Trust Bonds and $275,000 Convertible Fifteen Year 3½% Collateral Trust Bonds were converted into 401,015 shares of Ordinary Capital Stock.

These transactions resulted in a net increase of $13.5 million in funded debt, an increase of $29.7 million in the amount of Consolidated Debenture Stock pledged as collateral, and an increase of slightly more than $10 million in the amount of Ordinary Capital Stock outstanding in the hands of the public.

Air Lines

Your Air Lines had a net profit of $364,000, as compared with $1,084,000 in 1951 and $203,000 in 1950.

Revenues were higher, although revenue derived from Korean airlift charter flights was less. Expenses increased as a result of higher wage rates and material prices, and included costs incurred for development work and the familiarization of crews with the new types of aircraft which are to go into service in 1953.

The expansion of operations in Canada resulted in an increase of 8% in aircraft miles. To meet demands arising out of the quickening development of natural resources in British Columbia and the Yukon, additional direct services were operated out of Vancouver to Port Hardy, to Whitehorse and to Prince Rupert. The latter route was extended to Terrace, B.C., in order to serve the aluminum development at Kitimat. The Montreal-Val d'Or-Rouyn route was extended to Toronto via Earlton.

Application has been made to the Air Transport Board for a licence to operate a scheduled commercial air cargo service from Montreal to Vancouver, via Toronto, The Pas and Edmonton. Plans are being made for an extension of the trans-Pacific services to provide a through route between the Orient, Mexico and South America.

Rates

On January 25, the Board of Transport Commissioners authorized Canadian railways to make a general increase of 17% in freight rates, with certain exceptions, in lieu of a 12% interim increase authorized July 4, 1951. This increase became effective February 11.

An application was made on July 14, and amended September 13, for an immediate general increase of 8% in freight rates pending hearings on the balance of the application which asked the Board to establish as fair for your Company a return of 6½% on the net investment in its railway property, and for a further general increase of 9% in freight rates calculated to provide a return, as nearly as may be, of 5% on such net investment. The immediate increase of 8% was rejected by the Board. Hearings on the other phases of the application began on November 10 and concluded on February 5, 1953. These hearings included a renewal of the request for an immediate increase reduced from 8% to 7% based on actual results for 1952. Judgment was reserved.

To meet the cost of increases in salaries and wages for non-operating employees, the Board, acting on a separate application dated November 28, authorized a general increase of 9% in freight rates, effective January 1, 1953. By the order authorizing this increase, the Board cancelled the expiration date to which the prior increase of 17% was subject.

An increase of approximately 28% in rates on grain and grain products moving within Western Canada for domestic consumption, but not including grain and grain products moving at the so-called Crowsnest Pass rates, or rates related thereto, was granted by the Board effective November 10.

Rates on international, overhead and certain import and export traffic, which are related to and depend upon the level of rates in the United States, were increased on May 2 as a result of an increase granted United States railroads, and made applicable in Canada by authority of the Board of Transport Commissioners. This increase averaged approximately 6.8%.

As a result of amendments to the Railway Act, which arose from the Report of the Royal Commission on Transportation, the Board of Transport Commissioners ordered that trans-continental rates plus one-third be established as a maxima in territory defined as "intermediate territory." Reductions in rates to implement the order were made on January 15. The railways were also ordered to reduce, effective May 1, freight rates on certain traffic moving over the "rail links" between Eastern and Western Canada so as to subsidize shippers to the extent of $7 million per year, the full subsidy allowed under the statute passed in 1951. The difference between normal and reduced rates on this traffic is being paid to the railways by the Government of Canada.

Railway mail rates were increased 17% effective March 1, in lieu of an increase of 12% effective August 1, 1951. Percentage-wise, these increases were equal to the general increases authorized for freight rates.

Rates on international telegraph traffic, between Canada and the United States, were increased by approximately 18% on November 1.

Increases were made in certain passenger train fares, trans-continental competitive commodity rates, Ontario-Quebec "pick-up and delivery" competitive rates, and in certain express rates. Three important agreed charge contracts became effective covering petroleum products, lubricating oils and greases.

In December, as part of its programme for the equalization of freight rates, the Board of Transport Commissioners ordered the railways to publish and file tariffs to give effect, as from January 1, 1954, to an equalized uniform scale of mileage class rates. The Board at the same time announced its intention of holding regional hearings at which certain legal questions could be argued, and at which those interested might show cause why the proposed class rate scale should not be allowed to come into effect on the date mentioned.

Services

New motive power delivered during the year consisted of 60 diesel-electric units, bringing the number of such units in service at the end of the year to a total of 292.

The change-over to diesel power for freight and passenger services on the mountain territory between Calgary and Revelstoke was completed.

Diesel locomotives are being employed in territories selected with a view to obtaining the greatest advantage from the capital expended. The policy has been to provide sufficient units to handle the peak volume of traffic in each of the selected territories. Servicing and repair facilities are being planned so that, whenever traffic is below peak volume, diesel power can be operated in substitution for steam locomotives on adjacent territories. In this way, the high level of utilization necessary for maximum economies can be maintained.

Ordinary Capital Stock

By Order-in-Council P.C. 252 approved by His Excellency the Governor-General on February 4, 1930, the issue of additional Ordinary Capital Stock to the extent of $165 million was approved thereby increasing to $500 million the amount of Ordinary Capital Stock which your Company is authorized to issue. The shareholders have heretofore authorized the issue of $115 million of the additional amount of Ordinary Capital Stock, leaving a balance still to be authorized of $50 million.

(Advertisement)

Under the terms of the Trust Agreements securing the issues of Convertible Collateral Trust Bonds, your Company has issued or is holding reserved against the conversion rights conferred on the holders of the bonds, an amount of $68 million of Ordinary Capital Stock, leaving only $47 million which your Directors are authorized to issue for further financing when required.

Your Directors are, therefore, of the opinion that it is advisable that in addition, authority be given them to issue the said balance of Ordinary Capital Stock amounting to $50 million. You will accordingly be asked at the forthcoming meeting, to authorize the issue thereof in such amounts, on such terms and at such times as the Directors shall from time to time decide.

Patrons, Officers and Employees

Appreciation is recorded of the support of the many shippers and the travelling public who use your services. Their continued patronage is a tribute to the 95,000 men and women who make up the Canadian Pacific organization. For the loyal co-operation of officers and employees in your service, your Directors desire to express sincere thanks.

For the Directors,

W. A. Mather,

President.

Montreal, March 9, 1953.

Canadian Pacific Railway Company • General Balance Sheet, December 31, 1952

ASSETS

Property Investment:		
Railway, Rolling Stock and Inland Steamships	$1,100,587,702	
Improvements on Leased Property	126,867,977	
Stocks and Bonds—Leased Railway Companies	135,092,295	
Ocean and Coastal Steamships	62,922,995	
Hotel, Communication and Miscellaneous Properties	106,711,816	
		$1,532,182,785
Other Investments:		
Stocks and Bonds—Controlled Companies	$ 72,631,987	
Miscellaneous Investments	45,202,285	
Advances to Controlled and Other Companies	7,862,061	
Mortgages Collectible and Advances to Settlers	1,077,404	
Deferred Payments on Lands and Townsites	5,823,589	
Unsold Lands and Other Properties	8,266,002	
Insurance Fund	13,188,540	
Steamship Replacement Fund	21,527,340	
		175,579,208
Current Assets:		
Material and Supplies	$ 57,256,249	
Agents' and Conductors' Balances	19,013,712	
Miscellaneous Accounts Receivable	21,307,874	
Government of Canada Securities	54,960,200	
Cash	49,826,104	
		202,364,139
Unadjusted Debits:		
Insurance Prepaid	$ 542,448	
Unamortized Discount on Bonds	3,574,700	
Other Unadjusted Debits	3,262,380	
		7,379,528
		$1,917,505,660

LIABILITIES

Capital Stock:		
Ordinary Stock	$345,025,375	
Preference Stock—4% Non-cumulative	137,256,921	
		$ 482,282,296
Perpetual 4% Consolidated Debenture Stock	$390,273,997	
Less: Pledged as collateral to bonds	97,716,300	
		292,557,697
Funded Debt		112,516,000
Current Liabilities:		
Pay Rolls	$ 19,883,903	
Audited Vouchers	11,683,082	
Net Traffic Balances	2,349,609	
Miscellaneous Accounts Payable	10,387,364	
Accrued Fixed Charges	845,355	
Unmatured Dividends Declared	11,896,312	
Other Current Liabilities	28,392,883	
		85,438,508
Deferred Liabilities		3,922,694
Reserves and Unadjusted Credits:		
Depreciation Reserves	$533,051,345	
Investment Reserves	1,645,781	
Insurance Reserve	13,188,540	
Contingent Reserves	4,118,819	
Unadjusted Credits	3,838,682	
		555,843,167
Premium on Capital and Debenture Stock		37,263,157
Land Surplus		77,225,695
Profit and Loss Balance		270,456,446
		$1,917,505,660

ERIC A. LESLIE,

Vice-President and Comptroller

TO THE SHAREHOLDERS,
CANADIAN PACIFIC RAILWAY COMPANY:

We have examined the above General Balance Sheet of the Canadian Pacific Railway Company as at December 31, 1952, the Income and Profit and Loss Accounts for the year ending on that date and other related schedules, and have compared them with the books and records of the Company.

The records of the securities owned by the Company at December 31, 1952, were verified by an examination of those securities which were in the custody of its Treasurer and by certificates received from such depositaries as were holding securities in safe custody for the Company.

In our opinion the General Balance Sheet, Income and Profit and Loss Accounts and the other related schedules are properly drawn up so as to present fairly the financial position of the Company at December 31, 1952, and the results of its operations for the year then ended, according to the best of our information and the explanations given to us and as shown by the books of the Company.

PRICE WATERHOUSE & CO.
Chartered Accountants

Montreal, March 6, 1953

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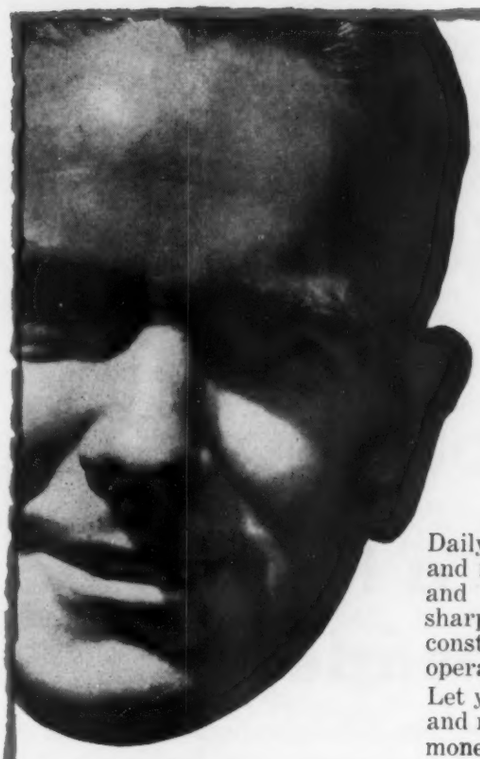

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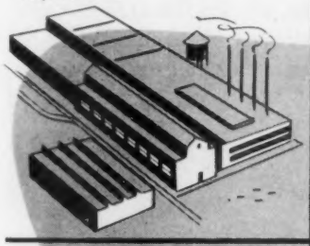
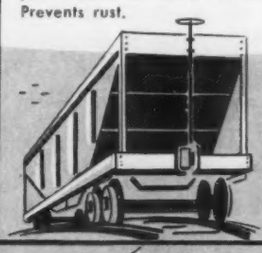


Car Cement for coating interior and exterior metal surfaces and joints. Seals out dirt, moisture. Prevents rust.



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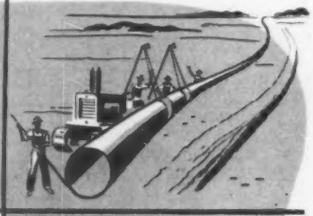
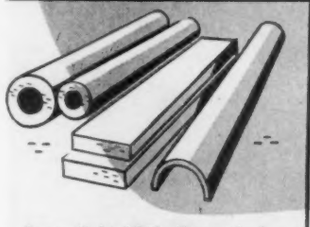
Pipe Line Felt — prevents corrosion and breakdown of vital underground liquid and gas pipe line installations.





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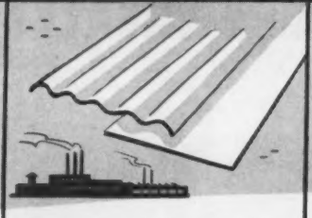

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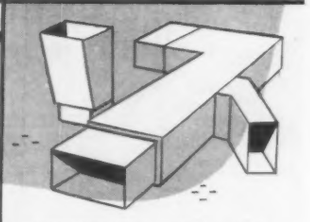

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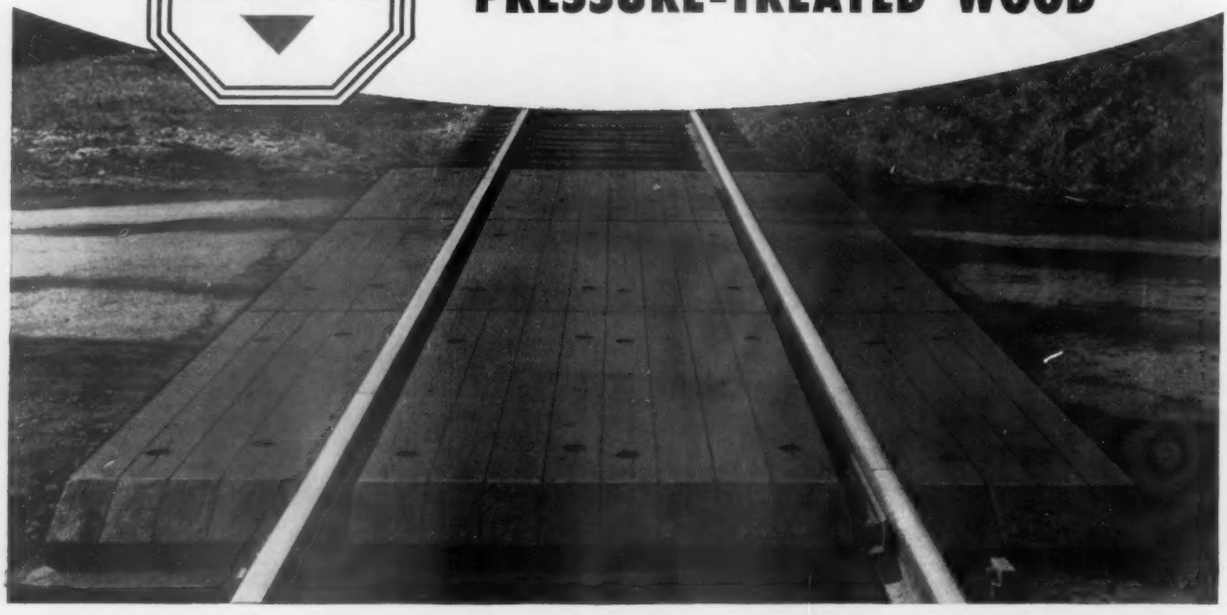

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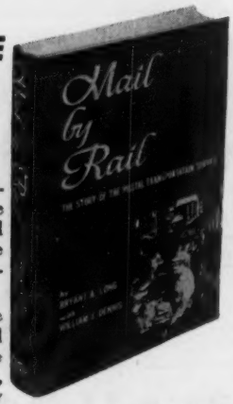

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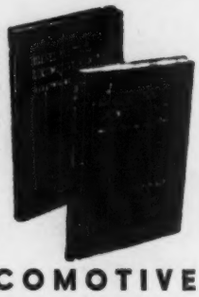

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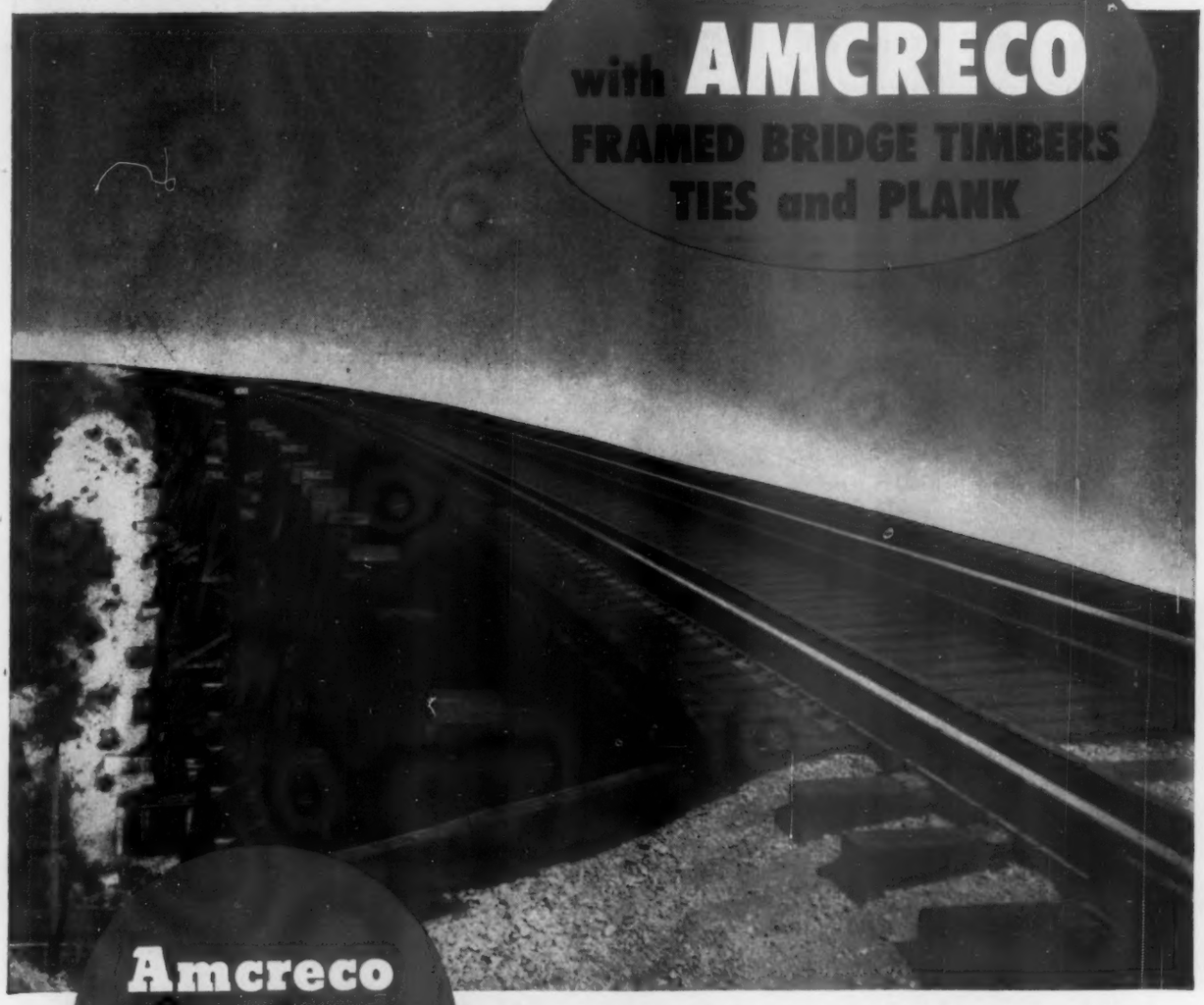

Amcreco
Lowry Process
Creosoted Products

Timbers • Bridge Ties
Adzed and Bored Cross Ties
Poles • Plank

Build longer lasting timber bridges — faster and easier by building with Amcreco framed bridge timbers, ties and plank. Speedy erection means fewer man hours and lower first costs.

You save in the long run too, because Amcreco products are pressure treated with creosote to protect the natural strength of the wood from insects, fungi and marine borers. This means extra years of service with reduced maintenance throughout the life of the structure.

Take advantage of our nearly half a century of experience in serving the railroad industry. Any of our conveniently located sales offices will be pleased to go over your next requirements with you.

AMERICAN CREOSOTING COMPANY

COLONIAL CREOSOTING COMPANY INCORPORATED

AMCRECO LOWRY PROCESS CREOSOTED PRODUCTS

GEORGIA CREOSOTING COMPANY INCORPORATED

GENERAL SALES OFFICE—CHICAGO, ILLINOIS
10 FIELD SALES OFFICES TO SERVE YOU

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The House of Stainless

CTEEL AT YOUR SERVICE STILL

CHICAGO STEEL SERVICE COMPANY

Kildare Ave. at 45th St. Chicago 32, Ill. Telephone LAfayette 3-7210

COMPLETE SERVICE IN STAINLESS and CARBON STEELS

what good is half a wheel?

good enough to show in cross section why whole AMCCW chilled car wheels can do a superior job for railroads.

The soft gray iron hub metal is easily machinable, insuring lowest cost for labor and boring tool maintenance; and easier, less critical mounting on axles.

The extreme hardness and accurate control of the white tread metal (chilled iron) gives maximum service with minimum loss of metal, and assures retention of rotundity throughout the long life of the wheel.

Derailment records show that the probability of chilled wheels coming loose on axles is less than that of wheels of any other metal.

The new design, either cored or solid hub, has a better distribution of metal from hub to flange to withstand the stresses developed under today's operating conditions.

For these and other reasons, chilled car wheels have a safety record unequalled in freight car service. For details, write for booklet, "The Chilled Car Wheel."

In good supply
Available locally
Short-haul delivery
Reduced inventory
Low first cost
Low exchange cost
Increased ton mileage
High safety standards
AMCCW plant inspection
Easier shop handling

ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

AMCCW

445 North Sacramento Boulevard, Chicago 12, Ill.

Albany Car Wheel Co. • American Car & Foundry Co. • Griffin Wheel Co.
Marshall Car Wheel & Foundry Co.
Pullman-Standard Car Mfg. Co. • Southern Wheel (American Brake Shoe Co.)

A SPECIAL MESSAGE FOR

. . . FROM THE TIMKEN ROLLER BEARING COMPANY

Journal lubrication eliminated between wheel-turnings!

Trains in regular service prove grease-lubricated TIMKEN® bearings go full wheel-turning period without attention!

TESTS on passenger trains in regular service prove that grease-lubricated Timken® bearings on diesels and passenger cars go from wheel-turning to wheel-turning without attention!

One railroad ran grease-lubricated Timken bearings over 200,000 miles with no addition of lubricant. Four leading railroads have already switched from oil to grease for their Timken bearing equipped passenger cars. Still another dozen are getting favorable results from their wheel-turning to wheel-turning tests of grease-lubricated Timken bearings.

The change from oil to grease lubrication of Timken bearings will bring big new operating savings to the railroads. Man-hours previously needed to check and add lubricant are eliminated. Lubricant itself is saved.

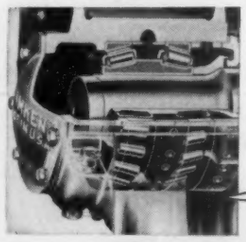
Timken bearings can be converted from oil to grease lubrication without modifying the bearings—without buying extra journal parts. And they are the *only* railroad journal bearings which can consistently go a full wheel-turning period on AAR-approved grease without additional lubricant!

For further information on how you can cut operating costs on your railroad with grease-lubricated Timken bearings, write The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

TIMKEN

TRADE-MARK REG. U. S. PAT. OFF.

TAPERED ROLLER BEARINGS



GREASE ME AT ONE WHEEL-TURNING ...FORGET ME 'TIL THE NEXT!

NOT JUST A BALL ◯ NOT JUST A ROLLER ⬭ THE TIMKEN TAPERED ROLLER ⬭ BEARING TAKES RADIAL ⬭ AND THRUST →⬭← LOADS OR ANY COMBINATION →⬭←